DOCUMENT RESUME

ED 228 353 UD 022 709

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TITLE A Study of Discrepant Reading Achievement of Minority and White Students in a Desegregating School District. Additional Findings: Phase Two, Phase Three and Phase Five: Longitudinal Analysis of High and Low Achieveing Students.
INSTITUTION Cleveland Public Schools, Ohio.
PUB DATE Feb 83
NOTE 96p.; For related documents, see ED 218 390, ED 219 469, and UD 022 704. Appendices are marginally legible.
PUB TYPE Reports - Research/Technical (143) -- Statistical Data (110)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Academic Achievement; Black Students; Comparative Analysis; Desegregation Effects; Educational Environment; Elementary Education; *Institutional Characteristics; Minority Groups; *Predictor Variables; *Racial Composition; *Racial Differences; *Reading Achievement; School Effectiveness; Socioeconomic Influences; Student Characteristics; *Urban Schools; White Students
IDENTIFIERS *Cleveland Public Schools OH

ABSTRACT

This report presents data on elementary students' reading achievement collected in phase five of a study carried out in Cleveland, Ohio, public schools and also includes supplementary findings from phases two and three. The study compared reading achievement of minority and white students; identified different characteristics of schools with high versus those with low minority to white achievement discrepancies; and examined differential characteristics of high versus low achieving students. Phase two findings compare white and minority reading scores, suspension rates, and promotion ratios in schools with the smallest versus schools with the largest white to minority discrepancies. Phase three findings identify predictors of reading achievement, and suggest that a school's social process factors are more consequentially related to the academic growth of minorities than of whites. Phase five findings, which are based on 1974-1981 data on background factors associated with academic success, indicate: (1) higher reading achievement scores; (2) a significant influence of poverty on achievement; and (3) higher average background academic indicator scores among students who scored higher on 1981 reading achievement tests. Statistical tables are appended to the report. (Author/MJL)

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ED228353

A STUDY OF DISCREPANT READING ACHIEVEMENT OF MINORITY AND WHITE STUDENTS IN A DESEGREGATING SCHOOL DISTRICT

ADDITIONAL FINDINGS: PHASE TWO, PHASE THREE - and - PHASE FIVE: Longitudinal Analysis of High and Low Achieving Students

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Cleveland Public Schools

February 1983

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ADDITIONAL FINDINGS: PHASE TWO,
PHASE THREE AND PHASE FIVE

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INTRODUCTION

Four phases of a study of discrepant reading achievement of minority and white students (Zafirau and Fleming, March and June, 1982) identified critical differences between high and low discrepant schools as well as between high and low achieving students. The study was initiated in response to the Remedial Order of February 6, 1978 and the June 1, 1981 report of the Office on School Monitoring and Community Relations.

The first report in March 1982, designed to answer five questions, provided results as follows:

1. Are there significant differences between minority and white students in reading comprehension and are these differences pervasive throughout the school system?

   . Based on data from reading comprehension tests for grades 1 through 12, reading performance of all Cleveland students declines from the early grades through secondary grades in terms of comparison with national norms for the tests.

   . At grades one and two, performance of minority and white students are comparable; in all other grades, minority students had significantly lower reading comprehension test performance than white students.

   . The difference between average minority and white scores increases approximately 1 Normal Curve Equivalent (NCE) every year.

2. Are there high and low schools in terms of minority-white reading comprehension discrepancy? Do they differ in school climate factors?

   . Analyses of secondary school data reveal that the secondary schools behave differentially with respect to reading comprehension, race and the interaction between these two factors. The schools reflect significant differences among themselves with respect to disparities in reading comprehension test scores between minority and white students.

   . When secondary schools with high and low post-test disparities were compared, they were found to differ in terms of only two of 62 school climate variables investigated, mainly reading comprehension post-test scores and gain scores.

- Secondary schools with high reading comprehension gain score disparity (i.e., change from pre- to post-tests in reading comprehension) differed from those schools with low gain score disparity in terms of only one of the 62 school climate variables investigated. These schools had fewer suspensions for disrupting the entire school than the schools with low disparities.

3. Do secondary students who showed the most gains in reading performance differ in terms of various indicators?

   - Secondary students who gained the most in reading comprehension were younger on the average than those who lost the most in reading between pre- and post-tests. It is noteworthy that the proportion of minority students is not significantly greater in the high reading decline group than in the high reading gain group.

   - Secondary post-test reading comprehension scores for white (but not minority) students in the least discrepant schools were significantly lower than in the most discrepant schools; and the difference between the average minority student NCE gain score was significantly higher (in favor of the minority students) in the least discrepant schools. Much of the enhancement of minority student reading comprehension performance relative to white student performance in the least discrepant schools in terms of gain score can be explained through the fact that the white students in the least discrepant schools had an average negative gain score.

4. What indicators are most effective in predicting school-wide reading comprehension?

   - The four most important variables for predicting school-wide secondary school reading comprehension include student attendance, poverty rate, percent of white students enrolled and overall suspension rate.

5. How do other urban districts report test results?

   - Fifty-eight districts replied to the survey. Six report results by race and sex, four others by race only and three others by sex only.

These results indicate that secondary schools behave differentially with respect to reading comprehension, race and the interaction between these two factors. This condition suggests that continued impetus toward attainment of equal educational opportunity for all students is imperative.

A second report issued in June 1982 offered additional comparisons which have implications for continuing efforts in implementing court-ordered educational components to overcome the gap in reading performance between minority and white students. The results, addressing five additional questions, indicated the following:

1. Do students evidencing various degrees of reading score gains differ in terms of race and grade?

   . No significant differences between minority and white students were found when comparing high, middle and low gaining student groups.

   . Significant differences were found when grade levels were compared in terms of high, middle and low gaining students. Two grades, grades four and seven, out of the seven grades with available test data, showed the greatest proportion of declining scores.

2. Do students pre-testing at or below the 33rd percentile which is the cut-off score for educational services in compensatory projects gain more in reading performance than students placing in the middle stanines (3, 4 and 5)? Was there a differential performance by racial group?

   . Students placing below the 33rd percentile do reflect greater reading gains than those in the middle stanines which may indicate that special compensatory educational programs which are available to those placing below the 33rd percentile contribute to this better performance.

   . This finding was essentially true for both white and minority students; however, white students gained more than their minority counterparts in the middle stanines.

3. Do students placing in the top stanines on the pre-test exhibit greater gains than students placing in the middle stanines?

   . The relative growth rate of the top one-third student group was greater (which was not necessarily expected) and in addition to the simple amount of growth being greater (which might be expected). Middle-stanine students did more poorly than could be predicted. This suggests that this block of students may not be involved in special programs which are presently targeted at lower performing as well as gifted students.

4. Do students in those grades receiving the THINK program reflect better reading comprehension gains than for those in the remaining grades?

   . No educationally significant differences in favor of the THINK grades were found for the 1980-81 school year. When student racial groups were compared, the low performing white students were the primary beneficiaries of the program. High performing students performed less well than their non-THINK counterparts.

5. Do students with higher reading comprehension scores outmigrate to a greater extent than do lower performing students?

   . Outmigrating students had significantly higher reading comprehension scores than students who remained.

   . Outmigrating students had higher economic status than students who remained.

   . Highest rate of outmigration came between elementary grades and junior high grades.

   . Girls did not outmigrate at a rate significantly different than for boys.

   . When family economic status is controlled for, significant reading differences between minority and white students are greatly reduced or disappear.

REPORT FOCUS

This report consists of three sections which present additional findings related to the reports issued in March and June 1982. The first and second sections contain findings from analyses of elementary school data while the third section reports findings from analyses of longitudinal elementary school student data.

PHASE TWO ADDITIONAL FINDINGS

The first section of the report presents findings for 88 elementary schools in a study designed to be parallel to the analyses of secondary school data completed in Phase Two of the Reading Discrepancy Study reported in March 1982.

The first analysis compares high and low discrepant elementary schools in terms of 19 school variables, such as:

- Average poverty rate of students attending school;
- School's racial composition;
- Average daily membership;
- Average daily attendance rate;
- Average daily suspension rate;
- Corporal punishment rate;
- Teacher absence rate;
- Reading comprehension measures (school average NCE post-test and gain scores by total and racial groups); and
- Non-promote rates (by total and racial groups) and age advancement rate

The trends reflected in these findings are similar to those for the parallel analyses done with the secondary data. Appendix A presents the statistical detail for the series of t-tests which tested for significant difference between high and low discrepant schools in terms of the variables listed above.

The Normal Curve Equivalent (NCE) score was used for determining discrepancy in reading performance. A gain score for each student was also derived by subtracting the pre-test score from the post-test score. The 88 elementary schools were ranked with respect to the extent of school-wide minority to white differences in terms of both average CTBS Reading Comprehension NCE post-test scores for each group and average CTBS Reading Comprehension NCE gain scores for each group. Since 37 of the elementary schools did not have pre-test data, gain scores were computable for only 51 of the 88 elementary schools. The 25 percent of the elementary schools (22 for the post-test score rankings and 13 for gain score rankings) displaying the greatest reading comprehension discrepancy between white and minority

students were contrasted with the 25 percent of the elementary schools (22 for the post-test score rankings and 13 for the gain score rankings) displaying the least amount of white/minority student discrepancy. The school climate indicators for each group included:

- Average poverty rate (percent receiving free lunch);
- Average daily attendance rate;
- Suspension rate;
- Rate of corporal punishment;
- Percent of white contrasted to minority students in school;
- Several types of non-promote rates;
- The age advancement rate;
- Size of school (average daily membership); and
- Teacher absence rate

The analyses were as interesting in what they did show as significantly different between top and bottom schools in terms of minority-to-white reading comprehension discrepancy as in what they did show as significantly different.

In terms of the disparity based on post-test scores only, the schools in the top 25 percent were significantly different from the bottom 25 percent with respect to seven of the 19 variables investigated. These results emerged:

1. The post-test reading comprehension scores for white students in the least discrepant schools were significantly lower than in the most discrepant schools (46.48 vs. 52.72 average NCE; $p < .001$).

2. The average post-test reading comprehension score for minority students in the least discrepant schools was higher than in the most discrepant schools (47.54 vs. 44.83; $p < .076$).

3. Average post-test reading comprehension post-test scores for all students in the least discrepant schools was not significantly higher than that for all students in the most discrepant schools (47.28 vs. 46.73; p =.705).

Thus, the lesser minority-to-white reading disparity in the least discrepant schools is due to both a lesser average reading comprehension for white students as well as a greater average reading comprehension score for minority students.

Two additional interesting trends related to suspension rate and nonpromote-to-promote ratios were noted. The average suspension rate in the most discrepant schools was over four times that in the least discrepant schools (6.16% vs. 1.45%; p =.005). The nonpromote-to-promote ratio for both black students (.116 vs. .044; p =.0001); and non-black, other students (.199 vs. .044; p =.0001); was greater in the least discrepant schools, than in the most discrepant schools! However, there are proportionately about twice as many non-promoted black students in the most discrepant schools as there are in the least discrepant schools, in terms of reading comprehension black-to-white student discrepancy.

The discrepancy (difference) between average minority and average white reading comprehension gain score (the difference/discrepancy score computed for each elementary school) provided the focus for the second series of comparisons for the additional findings related to Phase Two involving the elementary schools. These discrepancy scores were computed by subtracting the average white student gain score from the average minority student gain score within each school. The 51 elementary schools for whom gain score-based discrepancy scores could be computed were ranked. The 25% (13) of the elementary schools with the most positive (or least negative) discrepancy scores were contrasted with the 25% (13) of the elementary schools with the most negative discrepancy scores. These least and most discrepant schools were contrasted in terms of the nineteen variables listed above.

Results indicate that the least discrepant schools differed significantly ($p < .05$) from the most discrepant schools only in terms of one variable which was the average gain score for white students. In the least discrepant elementary schools, the average gain score for white students was significantly <u>less</u> (actually negative) than in the most discrepant schools (-1.7 NCE vs. +3.41 NCE). Although not statistically significant ($p < .05$), the direction of the difference changed for minority students. The average gain score for minority students in the least discrepant schools was <u>positive</u>, while it was negative in the most discrepant schools (+1.11 NCE vs. -1.22 NCE; two-tailed $p = .082$). The average overall gain score for all students, however, was virtually the same (and next to nothing) for both the least and the most discrepant elementary schools (+.44 NCE vs. -.06 NCE; two-tailed $p = .679$). In both the <u>least</u> and in the most discrepant schools, therefore, the positive average gains of one racial group is offset by the negative average gains of the other! Related to this is the finding that the average reading comprehension

post-test score for minority students in the least discrepant elementary schools is higher than in the most discrepant schools (45.40 NCE vs. 42.07 NCE; two-tailed p = .058). Finally, the average corporal punishment rate in the highest discrepant schools is over five times that in the least discrepant schools (11.0% vs. 2.1%). However, this trend is not a uniform one because the variance for the highest discrepant schools is very large (s.d. 19.3% vs. 3.9% for the least discrepant schools; F value two-tailed p = .0001). This suggests greater unpredictability for the most discrepant schools with respect to the corporal punishment rate. (See Appendix B for greater statistical detail.)

PHASE THREE ADDITIONAL FINDINGS

The following findings represent the second part of Phase Three of the original study of reading discrepancy. The findings pertain to developing a predictive model for reading comprehension achievement, using a predictor (independent variable) list similar to that used with the secondary schools in the Phase Three analyses.

Stepwise multiple regression was employed to develop a predictive model for both a school's average reading comprehension post-test score and a school's average reading comprehension gain score. A multiple regression coefficient of .700 (explaining 49.0% of the variance) was achieved for predicting an elementary school's average reading comprehension post-test score. The variables (and the R square change they caused--the increase in total explained variance they contribute), in the decreasing order of their sequential importance, are as follows:

- school poverty index as indicated by the percent of all students eating a free lunch (24.4%);
- percent of all students that are non-promoted (13.6%);
- student average daily attendance rate (7.9%);
- student suspension rate for all reasons (2.0%);

. percent of non-black students in school (.9%); and

. teacher absence rate (.2%).

These results are very similar to those obtained for the secondary schools. The total explained variance is nearly identical. The rank order of importance of the independent variables in predicting post-test reading comprehension achievement is similar. Every predictor variable for elementary school data except one is within one rank position of what it was for the secondary school data. The most deviant predictor variable in terms of its rank position is the percent of non-black (primarily white) students in the school. That variable was of third most important in predicting reading comprehension success at the secondary level (contributing a total of 1.7% of unique explained variance to the predictive model), while it slipped to a second-from-last-in-importance rank (explaining .9% of reading comprehension variance) in the elementary school predictive equation. Table 1 presents greater statistical detail for this elementary school predictive equation for reading comprehension achievement, utilizing the six predictor variables listed above.

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Insert Table 1 here
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Because the non-promote rate in a school could be considered a consequence of a final end-of-year reading achievement level (or best concurrent factor with it), a second multiple regression equation was developed excluding the non-promote rate variable. The multiple regression coefficient derived for predicting post-test reading comprehension from these five solely antecedent (although not necessarily controllable) variables was .619, yielding a total explained variance of 38.4 percent. The variables (and their contribution to total explained variance) in the order of their contribution to the stepwise multiple regression solution are as follows:

- poverty rate of students in school as measured by the percent of those eating a free lunch during 1980-81 (24.4%);
- school suspension rate for all reasons (6.8%);
- average daily attendance rate (5.3%);
- percent of non-black students in school (1.2%); and
- teacher absence rate (.6%).

This total explained variance of 38.4% compares with 44.2% found for the secondary schools. (See Table 2 for more statistical detail.)

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School average reading comprehension gain scores (post-test NCE minus pre-test NCE) were predicted using the same complete initial set of predictor variables and stepwise multiple regression analysis as in the first instance. A multiple regression coefficient of .379 (total explained variance equaling 14.4%) was achieved from the set of six predictor variables. The variables (and their contribution to explained variance) as entered into the stepwise multiple regression equation are as follows:

- school poverty rate as indicated by the percent of students eating a free lunch (3.6%);
- percent of non-black students in school (3.0%);
- percent of total students that were non-promotes (1.7%);
- student suspension rate for all reasons (2.5%);
- teachers' absence rate (2.1%); and
- average daily attendance rate (1.6%).

This total explained variance of 14.4% contrasts with the much greater 44.2% found for the secondary schools. (See Table 3 for additional statistical detail.)

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Because the non-promote rate in a school could be considered a consequence of a full year reading achievement as measured by the gain score (or at best concurrent with it), a second multiple regression equation to predict the average gain score was developed which excluded the non-promote rate variable. The multiple regression coefficient derived for predicting a full year reading comprehension gain score from these five antecedent (although not necessarily controllable) variables was .325, yielding a total explained variance of only 10.6 percent. The variables (and their contribution total explained variance) as entered into the stepwise multiple regression equation are as follows:

- school poverty rate as indicated by the percent of students eating a free lunch (3.6%);
- percent of non-black students in school (3.0%);
- suspension rate for all reasons (1.4%);
- average daily attendance rate (1.4%); and
- teachers' absence rate (1.1%).

(See Table 4 for more statistical detail.)

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Insert Table 4 here
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The preceding analyses replicated--for the elementary schools--those analyses done before using secondary school data. In summary, it was found that very similar predictive equations (both in terms of the rank-ordered importance of the predictor variables and in terms of the total explained variance) emerged for both elementary and secondary schools for predicting (end-of-year) reading comprehension post-test scores. In contrast, the total explained variance achieved in similarly predicting full year reading comprehension gain scores was greatly different for elementary (14.4%) and secondary (44.2%) schools. The most

important variable in predicting the school-wide average reading comprehension gain score was poverty rate, as measured by the proportion of students receiving free lunch.

In addition to these replicated findings, several additional elementary school predictor variables were added to the equation. These included:

- school size (average daily membership);
- corporal punishment rate; and
- age advancement (social promotion) rate.

Additional analyses were subsequently done for predicting the schools' reading comprehension post and gain scores--separately for total, black and non-black student groups within the schools. The predictor variables were entered into the predictive equation in developmental/time-sequenced group order:

- 1980-81 school givens/input variables (school size, poverty rate and racial composition of school);
- school year process indicators (attendance rate, suspension rate, corporal punishment rate and teacher absence rate); and
- school outcome/output indicators (school's non-promotion and social promotion rates).

In predicting the school-wide average reading comprehension post-test score for all students, the set of 1980-81 school year input variables explained 28.2% of the variance (poverty rate explained 24.4%; percent of non-black students explained an additional 3.7% and the school's average daily membership explained a trace amount of .04% additional explained variance). When school year process variables were added to these input variables, total explained variance was raised to 40.1% in the following increments:

- school suspension rate (6.2%);
- average daily attendance rate (3.3%);

- corporal punishment rate (1.9%); and
- teacher absence rate (.5%).

Lastly, two outcome variables were added, bringing the final multiple regression coefficient to .709 and the total explained variance to 50.3% (school non-promote rate adding 9.4% explained variance and social promotion rate adding .8% explained variance). (See Table 5 for additional statistical detail).

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Insert Table 5 here
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This same analysis was also done for predicting the 1980-81 school average reading comprehension post-test score for minority students and for white students, separately. (See Tables 6 and 7, respectively.)

The computed multiple regression coefficient for predicting minority student reading comprehension achievement was .721 (52.0% explained variance) and for white students, .632 (39.9% explained variance). Most of this difference in explained variance between minority and white students is attributable to the differing explanatory power of four variables:

- percent of total students who are non-promoted (11.9% for minority vs. .4% for white students in additional explained variance);
- suspension rate for all reasons (7.8% for minority vs. 1.7% for white students in additional explained variance);
- corporal punishment rate (2.7% for minority vs. .2% for whites in additional explained variance); and
- average daily attendance rate (2.6% for minority vs. 5.5% for white students in additional explained variance).

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Insert Tables 6 and 7 here
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This series of analyses was repeated using the several school average reading comprehension gain scores as the respective dependent variables in place of the corresponding school average reading comprehension post-test scores. In

general, less explained variance was achieved for the school average gain-score types of dependent variables than for predicting school average post-test reading scores. In addition, more variance was explained (almost three times as much) for the school average minority student gain score than for the school average white student gain score. Total explained variance for average minority student reading comprehension gain score is 26.7% (R = .517). For white students, it is only 10.2% (R = .320), with the total explained variance for predicting the average reading comprehension gain score for all students being 20.2% (R = .450).

The three input variables (size of school, poverty rate and racial composition) accounted for about the same amount of variance in explaining both average minority (8.8%) and white (8.3%) reading comprehension gain scores. However, the four process variables explained 10.3% additional variance for the average minority student reading comprehension gain score variable in the following increments:

- corporal punishment rate (6.8%);
- average daily attendance rate (1.6%);
- teacher absence rate (1.2%); and
- suspension rate for all reasons (.6%).

These same four process variables together accounted for only 1.2% additional explained variance for the average white student reading comprehension gain score!

This finding suggests that, for whatever reason(s), the social process factors in a school are much more consequentially related to the academic growth of minority students than to the academic growth of white students. Finally, the variable labeled "percent of non-promotes" contributed an additional 7.0% explained variance for minority students' average gain score, but only .7% for white students' average gain score. Some of these predictive relationships are simply associational; others may also be causal. (See Tables 8, 9 and 10 for more statistical detail.)

Insert Tables 8, 9 and 10 here

ANALYSIS OF LONGITUDINAL ELEMENTARY STUDENT DATA

A number of questions have arisen concerning what factors in a student's developmental background may be related to eventual academic success. Because it is widely held that reading comprehension is a central and basic indicator of academic success and is of central concern in the Remedial Order, a study was conducted to determine which background variables might be related to eventual reading comprehension achievement.

For this analysis, a sample (10%) of all high and low scoring elementary students was identified. High scoring students were defined as those placing at stanine 7, 8 or 9 on the Spring 1981 CTBS Reading Comprehension Test. Low scoring students were defined as those placing at stanine 1 or 2. This process resulted in a sample of 654 students, for whom a wide array of data was gathered. This array included:

- CTBS Reading Comprehension NCE scores for each year;
- Age;
- Sex;
- Race;
- Lunch code (poverty indicator);
- Birthplace;
- Metropolitan Reading Readiness scores (Auditory, Visual Discrimination, Language; Pre-Reading);
- Elementary school scholarship;
- Study habits grades;
- Reading grades for each year;
- Language grades for each year;
- Spelling grades for each year;
- Stanford Diagnostic Reading Test scores (Literal, Inferential and Total) for each year;

- Percent attendance for each year; and
- Percent of reading objectives mastered each year.

Unfortunately, school records were incomplete and many pieces of data were missing for many individuals. Analyses were conducted, however, using the data that were available. In addition, to contrasting high and low achievers with respect to the various background variables listed above, the analysis also contrasted these students in terms of those being in predominantly black schools prior to court-ordered desegregation vs. those in predominantly white schools.

Students from predominantly non-black (mostly white) schools in 1977-78 scored significantly higher (two-tailed $p < .05$ unless indicated differently) than those students from predominantly black schools in 1977-78, with respect to the following variables:

- 1979-80 Language Grade (2.70 vs. 2.2; $p = .007$);
- 1980-81 Stanford Diagnostic Reading Test Inferential Stanine Score (4.76 vs. 3.92; $p = .013$);
- 1980-81 Scholarship Grade (2.49 vs. 2.00; $p = .016$);
- 1979-80 Scholarship Grade (2.65 vs. 2.26; $p = .030$);
- 1979-80 Reading Grade (2.83 vs. 2.41; $p = .030$);
- 1980-81 Stanford Diagnostic Reading Test Total Stanine Score (4.836 vs. 4.081; $p = .031$);
- 1977-78 Study Habits Grade (2.45 vs. 2.03; $p = .036$);
- Percent of Reading Objectives Mastered in Grade 1 (7.69% vs. 6.65%; p. = 037);
- 1980-81 Reading Grade (2.54 vs. 2.17; $p = .067$); and
- 1978-79 CTBS Reading Comprehension NCE score (55.35 NCE vs. 45.28 NCE; $p = .085$).

(See Appendix C for these and other related statistics.)

It has been established in prior analyses that a greater percent of blacks than whites are at or below the poverty level. Also known is that academic achievement (as measured by a number of academic indicators) is

inversely (negatively) related to poverty level. It is not surprising, therefore, to find that when this series of comparisons was repeated--using only those students receiving free lunch (a type of poverty indicator)--approximately one-third of all of the variables which had (for the full group) varied significantly, between those who had attended "black" schools and those who had attended "white" schools, no longer did so. For the group of students receiving free lunch, those who had attended "black" schools did not differ significantly from those who had attended "white" schools with respect to these variables:

- 1977-78 study habits grade;
- 1979-80 reading and language grades; and
- 1979-80 and 1980-81 scholarship grades.

In addition, the absolute difference between each student group with respect to each of the other variables also decreased. This pattern strongly suggests that poverty status (i.e., family income) with all of its attendant influences, has played an important part in affecting student achievement. Nevertheless, some significant differences still remained between those who had attended "black" schools and those who had attended "white" schools prior to desegregation, after controlling for family income differences in this way. Because this free-lunch type of poverty indicator is a gross measure in that it does not distinguish between near poverty and abject poverty, a definitive determination of how much of such differences can be accounted for solely by family income variations cannot be made.

There was a slightly higher proportion of males (53.4%) from the "black" schools as there was for those receiving free lunch (83.9% vs. 79.6%). In addition, more students from "black" schools were born in Cleveland (93.9%) than were those from "white" schools (80.0%).

Of those students in the random sample for whom data were available for these analyses, slightly less than one-third as many students from black schools scored in the top two 1980-81 reading comprehension nationally normed stanines (8 and 9; i.e., the top 11%) as scored in the bottom two stanines (1 & 2; i.e., the bottom 11%). However, slightly more than one-third as many students from white schools scored in the top two 1980-81 reading comprehension stanines as scored in the bottom two stanines. These data are presented in Table 11.

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Insert Table 11 here
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Although it is clear that a number of students from both types of schools have done well in terms of reading achievement, it is equally apparent that for the school system, taken as a whole, more students have achieved very poorly than have achieved extremely well for the period from the 1977-78 school year through the 1980-81 school year. With respect to this sample of students (10%) for this study who scored either in the top three or bottom two stanines on the 1980-81 CTBS Reading Comprehension post-test and who took the Stanford Diagnostic Reading Test in the spring of 1981, it was found that, on an adjusted (proportionate) basis, approximately two times as many low SDRT (total score) achievers came from the 1977-78 black schools as came from the 1977-78 white schools. (See Appendix D for additional statistics related to this section.)

Those elementary school students who scored in the top three stanines on the Spring, 1981 CTBS Reading Comprehension Test were compared to those scoring in the bottom two stanines, using national norms, with respect to the wide array of background variables in the data set. Since the school district's average score was much lower than the national average, it was necessary to include the seventh stanine in order to get comparison groups of approximately the same size. Almost without exception, the top group had significantly ($p < .01$) higher average background academic indicator scores than did the low

achievement group==stretching back through the developmental elementary grades to grade one. This confirms the notion that academic achievement patterns are typically set early--although there certainly are exceptions to this rule.

The low achieving elementary reading group was significantly older than the high reading group (10.68 vs. 9.34 years; $p < .0001$), reflecting in part the consequences of non-promotion. There were a greater proportion of girls in the high reading achievement group, and also white students. A greater proportion of those in the low achievement group received free lunch (a poverty indicator) than did those in the high reading achievement group.

The top group also scored significantly higher ($p < .0001$) than did the low reading achievement group on the Metropolitan Reading Readiness Tests. Average subtest stanine scores for high and low achieving groups were:

- Auditory Discrimination, 6.05 vs. 3.91;
- Visual Discrimination, 6.14 vs. 4.24;
- Language, 5.92 vs. 4.18; and
- Pre-Reading, 6.02 vs. 3.85.

Similar results were found for the average CTBS Reading Comprehension subtest scores for every year from 1977-78 through 1979-80, with the difference between high and low groups increasing with each succeeding year. For every year from 1974-75 through 1980-81, the average scholarship, study habits, reading, language and spelling grades (for which sufficient data were available) were significantly higher for the 1980-81 CTBS Reading Comprehension achievement score group than for the low reading achievement group. The high reading achievement group also reflected significantly ($p < .0001$) higher average Stanford Diagnostic Reading Test stanine scores in the Inferential, Literal and Total subtests than did the low reading achievement group for the three years with related data available (1978-79 through 1980-81). The percent of reading objectives mastered

in grades 1, 3 and 5 was significantly ($p < .0001$) greater from the 1980-81 high achievement group, but signficant differences ($p < .01$) were not found for grades 2, 4 and 6. In fact, the simple difference (not significant at $p < .01$) for grades 4 and 6 was in favor of the low 1980-81 reading comprehension achievement group! Perhaps an explanation of this divergent finding can be found in the way the teaching and recording of reading objective mastery is handled in grades four and six.

Finally, percent of attendance for each year from 1974-75 through 1980-81 was found to be higher, in terms of simple difference, for the reading achievement group than for the lower reading achievement group, although such year-by-year differences achieved statistical significance at the .05 level of confidence (one-tailed test) for only the two most recent of the seven years from 1974-75 through 1980-81. (See Appendix E for more statistical details.)

CONCLUSIONS

From a diagnostic-prescriptive viewpoint, these findings suggest that the Metropolitan Reading Readiness Test results are particularly useful in identifying which students need particular attention and educational interventions from the beginning of their formal school experience. Otherwise, these students tend to "slip through the cracks of educational accessibility" and remediation will not be as effective as it would before a pattern of failure is too irrevocably set. These findings, moreover, strongly suggest that known effective pre-school programs (such as Head Start) be continued and strengthened wherever possible.

There is nothing particularly startling about these findings. They are informative, clarifying and perhaps even sobering. The message is fairly clear about the program offered in the Cleveland Public Schools. High academic achievement in the upper grades is a predictable outcome of developmental factors before and during the formal school experience which are in partnership with

effective teaching, with maximum and quality "time-on-task," and appropriate, consistent and continuing individual effort and application to the various educational activities by each student. There are no easy fixes. There are no reliable short-cuts to educational excellence.

At this point, it is well to consider the implications of a review of item bias (Fleming and Zafirau, 1982) which studied results from the Comprehensive Tests of Basic Skills, Reading Comprehension, Form S, 1973 Edition. Although two different analyses produced different findings related to bias, the pattern of "no response" of minority students was found to differ significantly from that of white students. High rates of "no response" on the last five items of the test (which are not the most difficult on the test) contributed to lower scores for minority students. It is apparent that all students can profit from training in test-taking skills as well as support in dealing with tests. Minority students appear to be particularly vulnerable in such situations if the information generated in the study represented testing at all grade levels. School staff have continuing responsibility to ensure that testing schedules in schools provide the required time established by the test publisher in the standardization of the particular test involved. Failure to adhere to appropriate time schedules severely affects student performance. Test scores are undoubtedly lowered and information about student progress and performance levels is distorted. Test scores will undoubtedly be a continuing indicator of school success. It is critical, therefore, that appropriate administration procedures and student preparation for the test be provided in every testing situation.

IMPLICATIONS

This study in all of its phases has used broad brush variables to study the disparity in reading achievement of minority and white students. Findings tend to confirm what is known about the differential effects of schools, both elementary and secondary, in producing reading achievement for minority and white students. A complex web of factors influencing student achievement in reading and possibly other subjects is at work in school organizations. Although not all the interactive effects can be identified through these analyses, key indicators have emerged. Findings about discrepant reading achievement levels of minority and white students have implications for future actions of the Cleveland School District as it implements the Remedial Order for desegregation and the educational components designed to reduce the achievement gaps between minority and white students. Although no startling findings emerged to suggest that Cleveland is "unique" as a setting or in conditions, study results identify patterns which have been cited in research. These patterns should be considered in the planning and implementation of affirmative action efforts.

Study results can be expressed in following generalizations from student histories.

<u>With respect to students</u>:

1. A student's academic performance pattern is established early in the school experience.

2. The lower performing student, once falling behind, typically continues to lag in achievement throughout the grades.

3. Regular attendance enhances the student's success in mastering reading.

4. Non-promotion does not appear to enhance reading performance.

5. The student, both minority and white, who does experience a lag in reading performance but attends school regularly does not decline in reading performance as much as those who attend irregularly.

6. Reading readiness status at the end of kindergarten as expressed by standardized test scores is a powerful indicator of student's needing particular educational interventions in the primary grades.

7. The boy student has a higher chance of becoming a disabled reader in the elementary grades.

8. A student who has left the school district typically has a higher reading comprehension score than a student who remains.

9. The higher achieving student in reading is younger, has been promoted with the class, reflects a higher family income, attends school regularly, is typically a girl and gains more in reading on a yearly basis than does the lower achieving student.

10. Reading achievement for both minority and white students is positively predicted by school attendance.

11. School attendance is also related to higher family income as measured by lunch card status for both minority and white students.

12. The lower achieving white student is typically male and more likely frequently absent from school. This absence pattern may be inflating the average reading performance scores of white students.

<u>With respect to schools</u>:

1. Schools have differential effects on reading performance.

2. Nineteen factors related to school climate and student characteristics are better predictors of reading comprehension achievement for secondary schools than for elementary schools.

3. The percent of non-black (primarily white) students appears to be more critical in predicting reading performance for secondary than for elementary schools.

4. Poverty rate is more important for predicting reading performance for elementary than for secondary schools.

5. In elementary schools, "social process" variables (suspension, corporal punishment, daily attendance and teacher absence rates) influence minority reading achievement more than white reading achievement.

6. Secondary schools showing improved reading performance had higher attendance rates and a higher incidence of suspensions for reasons of disruption of entire school which indicates a level of administrator actions to preserve school order.

7. Elementary schools with the most discrepancy between minority and white reading performance had more suspensions, typically higher corporal punishment rates and higher non-promote rates for black students than the least discrepant schools.

8. Schools which reduced discrepancy between minority and white reading performance showed declining white performance.

9. Studying longitudinal records of high and low achieving students, students from segregated black schools reflected lower reading scores; grades in scholarship, reading and study habits; as well as fewer "mastered" reading objectives in grade 1.

10. Approximately two times as many low scores on the 1980-81 Stanford Diagnostic Reading test came from the black schools as white schools in 1977-78.

11. Slightly <u>less</u> than one-third as many students from black schools scored in the top two stanines as scored in the bottom two stanines.

12. For white schools, slightly <u>more</u> than one-third scored in the top two stanines as scored in the bottom two stanines.

<u>With respect to the district performance</u>:

1. Reading performance compared with national norms declines at grade 3 and continues to fall throughout the secondary grades.

2. Beginning at grade 3, reading disparity emerges between minority and white reading performance levels and continues to increase throughout the remaining grades.

3. When family economic status is controlled for, significant differences between minority and white reading performances are greatly reduced or disappear.

4. When scores of students with lower attendance rates are removed from the longitudinal analyses of reading performance, the city-wide decline is not as critical.

5. The impact of compensatory programs may be affecting performance of students with below average stanine scores in reading because they show greater gains than students in the average stanines.

6. Middle stanine (average performing) students grew less in reading performance and performed below predicted levels.

7. Students who showed both large and small growth rates in reading performance did not differ by race and grade.

8. The point of highest rate of outmigration comes between elementary and junior high school.

Finally, this study tested the use of various approaches--analysis of co-variance and multiple regression, in identifying "significant" differences between schools and students. Predictive models were applied using similar predictors for both secondary and elementary schools. Schools were studied in "cross-sectional" as well as "longitudinal" perspectives of reading performance. These procedures proved to be viable. This model could be utilized with data from the recent years (1982 and 1983) to give increased insight into changes since the initial year of full-scale desegregation in the district. Additionally, as programming changes are weighed, these and subsequent findings could provide baseline information for comparison of academic impact of these programs.

Future Options

"Setting," includes both school and classroom level. Each level influences students' academic status and growth.

Research on "effective schools" (Edmonds, 1979) identifies key elements found in successful schools serving urban areas with high concentrations of minority children from lower income families.

The findings have re-asserted the critical impact that schools can make a difference for students. "Instructionally effective" schools according to Edmonds (1979) have the following elements:

1. A sense of mission;
2. strong building leadership;
3. high expectations for all students and staff;
4. frequent monitoring of student progress;
5. a positive learning climate and orderly atmosphere; and
6. sufficient opportunity for learning.

Re-evaluation of effective schools studies (Scott and Walberg, 1979) emphasizes that in addition to the improvement of what schools do for "poor" children and to "poor" children, cooperation with parents and students themselves remains a critical support to improved achievement.

Although the "effective school" dimensions seem clear and rational, the most productive methods to develop the skills which administrators and staff will need to make schools effective have not been sufficiently delineated. However, there are many proposals to improve training and practice of those significant persons who form the "critical mass" for improvement in a school.

Effective schools research, however, has not distinguished between elementary and secondary school settings, as Firestone and Herriott, 1982 note. There are real differences such as, size of school, size of staff, degree of consensus about emphasis on basic skills instruction and departmentalization. These elements produce greater complexities for secondary schools and different roles for secondary principals.

According to Persell (1982), it is necessary to assist principals in improving their skills in such areas as:

- fostering goal consensus in a school;
- encouraging high academic expectations;
- spending more time on instructional supervision;
- responding rapidly to discipline problems and handling them fairly;
- monitoring and evaluating all aspects of a school's program--using the information for analyses and correction;
- making decisions with participation of staff to encourage appropriate attitudes towards work and new ideas; and
- using time effectively, with priorities set on instructionally-related matters.

Other researchers (Purkey and Smith, 1982) have documented the power of the school as a social system with a powerful "culture" that affects everyone within.

Research on the classroom as a setting for learning provides additional perspectives on planning reforms in the schools. Teaching occurs in a complex context with some variables subject to influence by the teacher and principal and some that apparently are less changeable.

There is an emerging technical core for teaching, (Carter, 1982). This provides direction for teaching improvement. Undoubtedly, the central figure in changing teacher practice is the teacher. Teachers who have students spending more time on task, focus instruction, interact with students, clarify and reteach, demonstrate and check for understanding and waste less time in management activities facilitate higher achievement. Although the teacher may close the classroom door and teach--the classroom is not isolated from the school. The teacher needs school policies that permit the application of more potentially effective teaching strategies.

Most school districts, according to Williams (1982) when managing its most important interactions--that between teachers and students

and the effects thereof--are "loosely coupled." Principals should not permit peripheral matters to divert them from their central task which is supervising instruction. Goodlad (1978) calls upon administrators to reestablish instruction as a job priority.

However, in some aspects, administrators do focus on whether teachers are credentialed and whether schools meet standards. Whether credentialed teachers use sound teaching practices or do indeed teach the established curriculum receives little scrutiny. (Meyer and Rowan, 1977).

Finally, research (Leinhardt and Pollay, 1982) has identified other variables which should be taken into consideration as important to student growth--

1. small class size permitting more instruction between student and teacher;
2. high overlap between teaching/learning activities and criterion tasks;
3. mastery learning systems which permit regular monitoring of student progress;
4. increased time spent in cognitive activities;
5. reasonably rapid pacing, permitting greater chance of rehearsal and practice;
6. a formal management system, encouraging task orientation and successful completion;
7. positive teacher affect, encouraging learning;
8. increased teacher instructional time, permitting higher on-task rates and higher cognitive press towards learning; and
9. positive self-concept, permitting a happier child.

It appears that potentially effective alternatives to current practices are available for consideration as the school district moves toward improving the quality of its program and achievement of its students. Given the trends identified in this study, the district should address improve-

ment "with dispatch," choosing its alternatives based on the findings of research on effective schools and classrooms.

Assessment of the impact of alternative programs at the district, cluster, school and classroom level should be on-going. It should utilize appropriate models such as those demonstrated in this effort to detect significant change and to relate outcomes to key variables characterizing the settings in which learning occurs.

Currently, the data base necessary for study of longitudinal progress of individual students, its collection and storage are "second generation" in a time when it is possible to be functioning in at least the "fourth generation." This condition could limit our capability of studying patterns of student growth with accurate and complete data. Given solutions to data base problems, information from well-designed analyses could enhance significantly the educational management decision-making in this district.

- TABLES -

(1-11)

TABLE 1

************** MULTIPLE REGRESSION **************

DEPENDENT VARIABLE.. T2NCEALL SCHL AVER. 80-81 CTBS R.COMP.POST-T NCE

SUMMARY TABLE

VARIABLE		MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
POVRATE	% OF 1980-81 STUDENTS EATING FREE LUNCH	0.49428	0.24431	0.24431	-0.49428	-0.57009490-01	-0.22057
PIQIMP	PERCENT OF TOTAL THAT ARE NONPROMOTIES	0.61683	0.38048	0.13616	0.37986	0.2848038	0.36851
PADA	1980-81 AVERAGE DAILY ATTENDANCE IN %	0.67758	0.45911	0.07864	0.45195	0.7189602	0.34208
PTOTSUS	SUSPENSION RATE FOR ALL REASONS--% ADM	0.69194	0.47879	0.01967	-0.31895	-0.1094635	-0.14675
PNONBLK	PERCENT NON-BLACK OTHERS IN SCHOOL	0.69870	0.48818	0.00940	-0.26296	-0.45442540-01	-0.10870
PTEACHAB	TEACHER ABSENCE RATE FOR SCHOOL--80-81%	0.69999	0.48998	0.00180	-0.23640	-0.1246142	-0.04624
(CONSTANT)						-12.83973	

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TABLE 2

* * * * * * * * * * * * * M U L T I P L E R E G R E S S I O N * * * * * * * * * * * * * *

DEPENDENT VARIABLE.. T2NCFALL SCHL AVER. 80-81 CTBS R.COMP.POST-T NCE

SUMMARY TABLE

VARIABLE		MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
POVRATE	% OF 1980-81 STUDENTS EATING FREE LUNCH	0.49428	0.24431	0.24431	-0.49428	-0.64507720-01	-0.24958
PIOTSUS	SUSPENSION RATE FOR ALL REASONS--% ADM	0.55898	0.31245	0.06814	-0.31895	-0.2154215	-0.28886
PADA	1980-81 AVERAGE DAILY ATTENDANCE IN %	0.60458	0.36552	0.05307	0.45195	0.5339921	0.25405
PNONBLK	PERCENT NON-BLACK OTHERS IN SCHOOL	0.61424	0.37729	0.01177	-0.26346	-0.52204610-01	-0.12487
PTEACHAB	TEACHER ABSENCE RATE FOR SCHOOL--80-81%	0.61946	0.38373	0.00645	-0.23640	-0.2341494	-0.08688
(CONSTANT)						7.764982	

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TABLE 3

**************** MULTIPLE REGRESSION ****************

DEPENDENT VARIABLE.. D2NCEALL AVER.CTPS P.COMP.NCE GAIN SCORE--ALL STU

SUMMARY TABLE

VARIABLE		MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
POVRATE	% OF 1980-81 STUDENTS EATING FREE LUNCH	0.19088	0.03643	0.03643	0.19088	0.61367000-01	0.40883
PNONBLK	PERCENT NON-BLACK OTHERS IN SCHOOL	0.24849	0.06642	0.03038	-0.12180	-0.29213480-01	-0.13062
PTOTNP	PERCENT OF TOTAL THAT ARE NONPROMOTES	0.28910	0.08358	0.01676	-0.17129	-0.1372740	-0.21614
PTOTSUS	SUSPENSION RATE FOR ALL REASONS--% ADM	0.32969	0.10870	0.02512	-0.12370	-0.61734570-01	-0.17337
PTEACHAB	TEACHER ABSENCE RATE FOR SCHOOL--80-81%	0.36061	0.13004	0.02134	0.03195	-0.3109840	-0.19043
PADA	1980-81 AVERAGE DAILY ATTENDANCE IN %	0.37682	0.14350	0.01346	-0.01606	0.1913224	0.17618
(CONSTANT)						-17.09053	

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TABLE 4

* * * * * * * * * * * * * MULTIPLE REGRESSION * * * * * * * * * * * * *

DEPENDENT VARIABLE.. D2NCEALL AVER.CTBS R.COMP.NCE GAIN SCORE--ALL STU

SUMMARY TABLE

VARIABLE		MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
POVRATE	% OF 1980-81 STUDENTS EATING FREE LUNCH	0.19088	0.03643	0.03643	0.19088	0.63455720-01	0.42274
PNONBLK	PERCENT NON-BLACK OTHERS IN SCHOOL	0.25849	0.06682	0.03038	-0.12180	-0.31032550-01	-0.13876
PTOTSUS	SUSPENSION RATE FOR ALL REASONS--% ATM	0.28362	0.08044	0.01362	-0.12370	-0.43238170-01	-0.12143
PADA	1980-81 AVERAGE DAILY ATTENDANCE IN %	0.30744	0.09452	0.01408	-0.01606	0.2152895	0.19826
PTEACHAB	TEACHER ABSENCE RATE FOR SCHOOL--80-81%	0.32466	0.10553	0.01101	0.03125	-0.1992126	-0.12198
(CONSTANT)						-20.77993	

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TABLE 5

* * * * * * * * * * * * * MULTIPLE REGRESSION * * * * * * * * * * * * *

DEPENDENT VARIABLE.. T2NCEALL SCHL AVER. 80-81 CTBS P.COMP.POST-T NCE

SUMMARY TABLE

VARIABLE		MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
POVRATE	% OF 1980-81 STUDENTS EATING FREE LUNCH	0.49428	0.24431	0.24431	-0.49428	-0.61498430-01	-0.23794
PNONBLK	PERCENT NON-BLACK OTHERS IN SCHOOL	0.53080	0.28174	0.03743	-0.26346	-0.47571530-01	-0.11379
ADM	SCHOOL'S 80-81 AVERAGE DAILY MEMBERSHIP	0.53115	0.28212	0.00038	-0.12799	-0.16880760-03	-0.00501
PTOTSUS	SUSPENSION RATE FOR ALL REASONS--% ADM	0.58675	0.34428	0.06216	-0.31895	-0.94497760-01	-0.12669
PADA	1980-81 AVERAGE DAILY ATTENDANCE IN %	0.61426	0.37731	0.03303	0.45195	0.7084073	0.33706
PTOTCP	SCHOOL CORPORAL PUNISH.RATE AS % OF ADM	0.62975	0.39659	0.01928	-0.24309	-0.30333520-01	-0.07393
PTEACHAB	TEACHER ABSENCE RATE FOR SCHOOL--80-81%	0.63340	0.40119	0.00460	-0.23640	-0.1023872	-0.03799
PTOTNP	PERCENT OF TOTAL THAT ARE NONPROMOTES	0.70367	0.49516	0.09397	0.37986	0.2461490	0.31849
PAGEADV	PERCENT OF TOTAL THAT ARE AGE ADVANCMNTS	0.70923	0.50301	0.00785	0.14441	0.6918683	0.09766
(CONSTANT)						-11.62900	

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TABLE 6

* * * * * * * * * * * * * MULTIPLE REGRESSION * * * * * * * * * * * * *

DEPENDENT VARIABLE.. T2NCEMIN SCHL.AVEP.MINORITY CTPS R.COMP.PST-T NCE

SUMMARY TABLE

VARIABLE		MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
POVRATE	% OF 1980-81 STUDENTS EATING FREE LUNCH	0.47830	0.21003	0.21003	-0.45830	-0.54055730-01	-0.19957
PNONBLK	PERCENT NON-BLACK OTHERS IN SCHOOL	0.56423	0.25425	0.04422	-0.27485	-0.59687260-01	-0.13624
ADM	SCHOOL'S 80-81 AVERAGE DAILY MEMBERSHIP	0.56438	0.25440	0.00015	-0.11607	0.12668240-03	0.00359
PTOTSUS	SUSPENSION RATE FOR ALL REASONS--% ADM	0.57676	0.33277	0.07836	-0.34585	-0.1025364	-0.13117
PADA	1980-81 AVERAGE DAILY ATTENDANCE IN %	0.59894	0.35873	0.02596	0.41358	0.7063651	0.32080
PTOTCP	SCHOOL CORPORAL PUNISH.RATE AS % OF ADM	0.62107	0.38572	0.02700	-0.27385	-0.38976210-01	-0.09065
PTEACHAB	TEACHER ABSENCE RATE FOR SCHOOL--80-81%	0.62766	0.39396	0.00824	-0.24513	-0.1658007	-0.05870
PTOTNP	PERCENT OF TOTAL THAT ARE NONPROMOTES	0.71640	0.51323	0.11927	0.43603	0.2954098	0.36479
PAGEADV	PERCENT OF TOTAL THAT ARE AGE ADVANCMNTS	0.72142	0.52045	0.00722	0.16732	0.6952051	0.09364
(CONSTANT)						-12.51672	

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TABLE 7

* * * * * * * * * * * * * MULTIPLE REGRESSION * * * * * * * * * * * * *

DEPENDENT VARIABLE.. T2NCEWHT SCHL.AVER.WHITE CTBS R.COMP.POST-T NCE

SUMMARY TABLE

VARIABLE		MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
POVRATE	% OF 1980-81 STUDENTS EATING FREE LUNCH	0.50395	0.25396	0.25396	-0.50395	-0.73986990-01	-0.24940
PNONBLK	PERCENT NON-BLACK OTHERS IN SCHOOL	0.54765	0.29992	0.04596	-0.28556	-0.58664800-01	-0.12226
ADM	SCHOOL'S 80-81 AVERAGE DAILY MEMBERSHIP	0.55034	0.30287	0.00295	-0.16591	-0.15737700-02	-0.04071
PADA	1980-81 AVERAGE DAILY ATTENDANCE IN %	0.59847	0.35816	0.05529	0.54428	0.9181529	0.38061
PTOTSUS	SUSPENSION RATE FOR ALL REASONS--% ADM	0.61278	0.37550	0.01733	-0.15517	-0.66139540-01	-0.07725
PTOTCP	SCHOOL CORPORAL PUNISH.RATE AS % OF ADM	0.61447	0.37757	0.00207	-0.11216	-0.11321180-01	-0.02404
PAGEADV	PERCENT OF TOTAL THAT ARE AGE ADVANCMNTS	0.62851	0.39503	0.01746	0.04420	0.9351142	0.11500
PTOTNP	PERCENT OF TOTAL THAT ARE NONPROMOTES	0.63163	0.39896	0.00393	0.09573	0.69024450-01	0.07781
PTEACHAB	TEACHER ABSENCE RATE FOR SCHOOL--80-81%	0.63179	0.39916	0.00020	-0.16377	0.48324730-01	0.01562
(CONSTANT)						-25.62623	

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TABLE 8

**************** MULTIPLE REGRESSION ****************

DEPENDENT VARIABLE.. D2NCEALL AVER.CTPS N.COMP.NCE GAIN SCORE--ALL STU

SUMMARY TABLE

VARIABLE		MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
POVRATE	% OF 1980-81 STUDENTS EATING FREE LUNCH	0.19088	0.03643	0.03643	0.19088	0.57303380-01	0.38176
PNONBLK	PERCENT NON-BLACK OTHERS IN SCHOOL	0.25649	0.06602	0.02958	-0.12180	-0.27932710-01	-0.12206
ADM	SCHOOL'S 80-81 AVERAGE DAILY MEMBERSHIP	0.30633	0.09384	0.02782	0.17856	0.34839380-02	0.18594
PTOTCP	SCHOOL CORPORAL PUNISH.RATE AS.% OF ADM	0.34790	0.12103	0.02720	-0.14020	-0.34916740-01	-0.19407
PADA	1980-81 AVERAGE DAILY ATTENDANCE IN %	0.36215	0.13115	0.01012	-0.01606	0.1689902	0.15562
PTOTSUS	SUSPENSION RATE FOR ALL REASONS--% ADM	0.37335	0.13939	0.00824	-0.12370	-0.56337520-01	-0.15822
PTEACHAB	TEACHER ABSENCE RATE FOR SCHOOL--80-81%	0.37720	0.14228	0.00289	0.03195	-0.2389702	-0.14633
PTOTNP	PERCENT OF TOTAL THAT ARE NONPROMOTES	0.44417	0.19728	0.05501	-0.17129	-0.1402836	-0.22068
PAGEADV	PERCENT OF TOTAL THAT ARE AGE ADVANCMNTS	0.44583	0.20235	0.00507	-0.04241	-0.4074745	-0.09193
(CONSTANT)						-16.71050	

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TABLE 9

* * * * * * * * * * * * * MULTIPLE REGRESSION * * * * * * * * * * * * *

DEPENDENT VARIABLE.. D2NCEMIN AVER.MINORITY CTPS R.CCPP.GAIN SCOPF

SUMMARY TABLE

VARIABLE		MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
ADM	SCHOOL'S 80-81 AVERAGE DAILY MEMBERSHIP	0.18576	0.03451	0.03451	0.18576	0.41404360-02	0.20390
PNONBLK	PERCENT NON-BLACK OTHERS IN SCHOOL	0.23762	0.05656	0.02205	-0.13889	-0.29827260-01	-0.12306
POVRATE	% OF 1980-81 STUDENTS EATING FREE LUNCH	0.29682	0.08810	0.03154	0.15457	0.67116310-01	0.41257
PTOTCP	SCHOOL CORPORAL PUNISH.RATE AS % OF ADM	0.39558	0.15649	0.06838	-0.23538	-0.56805110-01	-0.29133
PADA	1980-81 AVERAGE DAILY ATTENDANCE IN %	0.41549	0.17262	0.01614	0.02893	0.2376999	0.20197
PTEACHAB	TEACHER ABSENCE RATE FOR SCHOOL--80-81%	0.42987	0.18479	0.01217	-0.04306	-0.3925795	-0.22181
PTOTSUS	SUSPENSION RATE FOR ALL REASONS--% ADM	0.43672	0.19073	0.00594	-0.13377	-0.59516990-01	-0.15423
PTOTMP	PERCENT OF TOTAL THAT ARE NONPROMOTES	0.51109	0.26121	0.07048	-0.15087	-0.1729273	-0.25124
PAGEADV	PERCENT OF TOTAL THAT ARE AGE ADVANCMNTS	0.51711	0.26741	0.00619	-0.04091	-0.4883200	-0.10164
(CONSTANT)						-22.59016	

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TABLE 10

* * * * * * * * * * * * * * * * MULTIPLE REGRESSION * * * * * * * * * * * * * * *

DEPENDENT VARIABLE.. D2NCEWHT AVER.80-81 WHITE CTBS R.COMP. GAIN SCORE

SUMMARY TABLE

VARIABLE		MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
POVRATE	% OF 1980-81 STUDENTS EATING FREE LUNCH	0.22525	0.05074	0.05074	0.22525	0.33508810-01	0.17142
ADM	SCHOOL'S 80-81 AVERAGE DAILY MEMBERSHIP	0.26109	0.06817	0.01743	0.15451	0.36369490-02	0.14905
PNONBLK	PERCENT NON-BLACK OTHERS IN SCHOOL	0.22865	0.05232	0.01515	-0.04029	-0.31985150-01	-0.10982
PTEACHAB	TEACHER ABSENCE RATE FOR SCHOOL--80-81%	0.30322	0.09194	0.00862	0.18537	0.1976539	0.07413
PTOTCP	SCHOOL CORPORAL PUNISH.RATE AS % OF ADM	0.30674	0.09409	0.00215	0.09596	0.77220000-02	0.03296
PTOTSUS	SUSPENSION RATE FOR ALL REASONS--% ADM	0.30781	0.09475	0.00066	-0.01256	-0.20795540-01	-0.04485
PTOTNP	PERCENT OF TOTAL THAT ARE NONPROMOTES	0.31933	0.10197	0.00722	-0.13985	-0.81051630-01	-0.09600
PADA	1980-81 AVERAGE DAILY ATTENDANCE IN %	0.31979	0.10227	0.00029	-0.12153	-0.36962520-01	-0.02614
(CONSTANT)						0.2213197	

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TABLE 11

A Random Sample Based Comparison of 1977-78 (Pre-Desegregation) Elementary Students From Predominantly Black Schools (80-100% Black) With 1977-78 Elementary Students From Predominantly Non-Black Schools (0-20% Black) in Terms of High and Low Achievers on the 1981 CTBS Reading Comprehension Test

1977-78 ELEMENTARY SCHOOL TYPE	STANINES 1 & 2	STANINES 8 & 9
Black	79	22
White	28	10

- APPENDICES -

(A-E)

APPENDIX A

APPENDIX A

SPECIAL REPORT PUR-99 DR. MARGARET FLEMINGER, S.JAMES ZAPPIAN
COMPUTER PROGRAM AND DATA ANALYSES BY .JP ZAPIAN, PH.D.
FILE SCHS4001 (CREATION DATE = 02/14/83) SCHOOLS AS CASE WITH PUBLIC SCHOOL DISTRICT AS VAR1.00-01

- T - T E S T -

GROUP 1 - T2SCH5A 88 1. Least Discrepant Elementary Schools
GROUP 2 - T2SCH5A 96 2. Most Discrepant Elementary Schools

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	POOLED VARIANCE ESTIMATE t VALUE	POOLED VARIANCE ESTIMATE 2-TAIL PROB.	SEPARATE VARIANCE ESTIMATE t VALUE	SEPARATE VARIANCE ESTIMATE DEGREES OF FREEDOM	SEPARATE VARIANCE ESTIMATE 2-TAIL PROB.
PCFRATE % OF 1980-81 STUDENTS EATING FREE LUNCH									
GROUP 1	22	70.0000	17.929	3.822	1.32	0.926	1.31	42	0.199
GROUP 2	22	63.2409	19.582	3.332					
PWBBLK PERCENT NON-BLACK OTHERS IN SCHOOL									
GROUP 1	22	31.6682	12.987	2.769	1.47	0.388	0.13	42	0.897
GROUP 2	22	30.8978	10.713	2.284					
ADA SCHOOL'S 80-81 AVERAGE DAILY MEMBERSHIP									
GROUP 1	22	950.2500	340.422	72.578	1.26	0.698	0.61	42	0.695	41.97	0.545
GROUP 2	22	930.7149	304.450	30.797					
PADA 1980-81 AVERAGE DAILY ATTENDANCE IN %									
GROUP 1	22	87.9303	3.006	0.774	1.89	0.157	-3.24	42	0.002	-3.29	37.54	0.002
GROUP 2	22	89.9004	2.284	0.487					
PSUSSES SUSPENSION RATE FOR ALL REASONS--% ADA									
GROUP 1	22	7.4948	2.077	0.443	13.44	0.0	-3.16	42	0.003	-3.10	24.11	0.005
GROUP 2	22	6.1634	6.881	1.467					
PSOTCP SCHOOL CORPORAL PUNISH.RATE AS % OF ADA									
GROUP 1	22	3.2931?	0.9496	1.2979	9.74	0.000	-1.33	41	0.891	-1.30	29.92	0.102
GROUP 2	21	10.7331	10.691	4.070					
PTEACPAB TEACHER ABSENCE RATE FOR SCHOOL--80-81?									
GROUP 1	22	6.2073	2.041	0.435	7.39	0.002	-0.84	42	0.569	-0.78	39.96	0.558
GROUP 2	22	6.5800	1.320	0.282					
TSMCEALL SCHL AVER. 80-81 CTBS R.COMP.PCT-T NCE									
GROUP 1	22	47.2901	3.950	0.8799	2.61	0.021	1.39	42	0.925	0.93	39.07	0.705
GROUP 2	22	46.7304	5.751	1.226					
TSMCEMIN SCHL.AVER.MINORITY CTBS R.COMP.PCT-T NCE									
GROUP 1	22	47.5433	3.837	0.7996	2.01	0.022	1.83	42	0.074	1.93	39.28	0.031 ?
GROUP 2	22	46.0000	5.925	1.263					
TSMCEWHT SCHL.AVER.WHITE CTBS R.COMP.PCT-T NCE									
GROUP 1	22	48.4773	3.994	0.8515	2.60	0.028	-3.02	42	0.008	-3.02	39.91	0.001
GROUP 2	22	43.7307	6.591	1.367					
TSMCDIFF AV.MINORITY-AV.WHITE R.COMP.PCT-T NCE									
GROUP 1	22	1.0682	1.066	0.2348	1.87	0.077	15.02	42	0.000	15.02	41.95	0.000
GROUP 2	22	-7.0727	1.936	0.412					
SSMCEALL AVER.CTBS R.COMP.NCE GAIN SCORE--ALL STU									
GROUP 1	7	1.3014	3.218	1.216	1.33	0.993	0.85	23	0.399	0.93	9.72	0.429
GROUP 2	18	0.2C91	2.788	0.657					
SSMCEMIN AVER.MINORITY CTBS R.COMP.GAIN SCORE									
GROUP 1	7	1.3729	3.515	1.242	1.47	0.388	1.07	23	0.295	0.95	9.96	0.369
GROUP 2	18	0.0027	3.045	0.634					
SSMCEWHT AVER.OC-81 WHITE CTBS R.COMP. GAIN SCORE									
GROUP 1	7	1.3886	3.963	1.497	1.90	0.439	0.32	23	0.749	0.37	15.28	0.716
GROUP 2	18	0.0479	3.995	0.943					
SSMCDIFF AV.MINORITY LESS AV.WHITE COMP.NCE GAIN									
GROUP 1	7	-0.0160	1.072	0.422	3.68	0.170	0.76	23	0.492	0.88	19.69	0.397
GROUP 2	18	-0.0440	3.935	0.892					
PSOTSP PERCENT OF TOTAL TEST AND RESPONSIBLE									
GROUP 1	22	15.7455	6.7497	1.3932	3.32	0.012	4.84	42	0.000	4.97	33.19	0.000
GROUP 2	22	6.1929	3.646	0.776					

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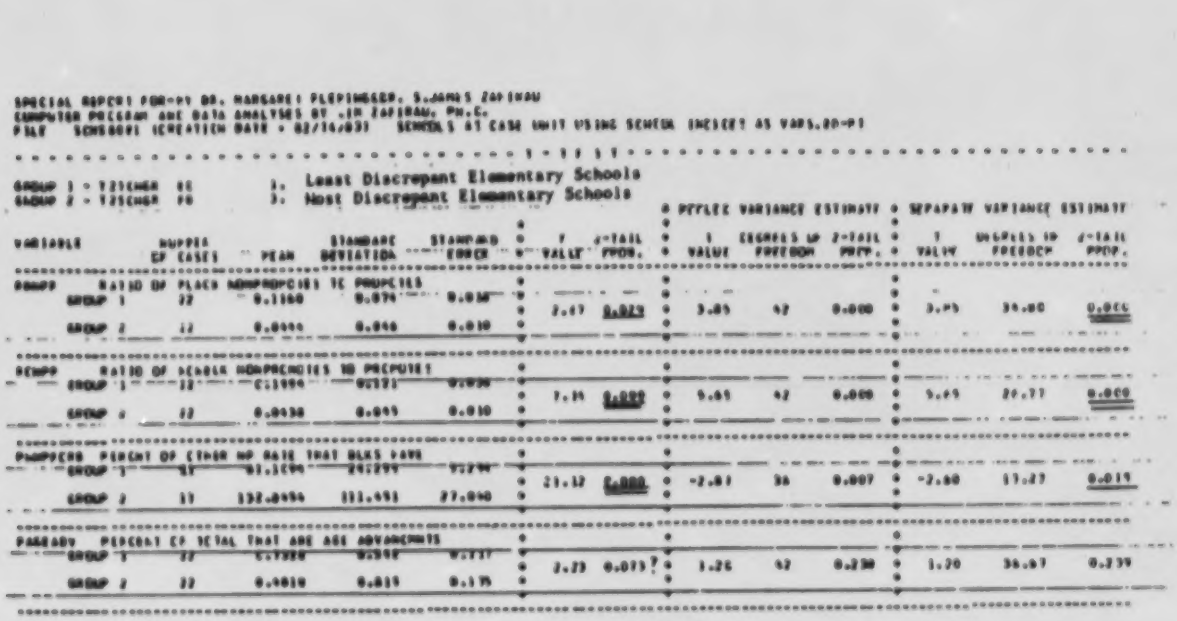
APPENDIX A (continued)



Group 1: Least Discrepant 25% of Elementary Schools--Highest (positive) valence elementary schools in terms of minority to white reading comprehension post-test score discrepancy (average minority student NCE post-test score minus average white student NCE post-test score).

Group 2: Most Discrepant 25% of Elementary Schools--Lowest (most negative) valence elementary schools in terms of minority to white reading comprehension post-test score discrepancy (average minority student NCE post-test score minus average white student NCE post-test score).

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APPENDIX B

APPENDIX B

SPECIAL REPEAT PGM-PT CO. MARGARET FLEMINGHAM, S.JAMES ZAPINAU
COMPUTER PROGRAM AND DATA ANALYSES BY .JR ZAPINAU, PH.C.
FILE SCHOOLS1 (CREATION DATE = 02/14/83) SCHOOLS AS CASE UNIT USING SCHOOL INDICES AS VARS.PO-P1

T - T E S T

GROUP 1 = DISCRMB 01 1. Least Discrepant Elementary Schools
GROUP 2 = DISCRMB 02 2. Most Discrepant Elementary Schools

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	F 2-TAIL PROB.	EQUAL VARIANCE ESTIMATE t VALUE	EQUAL VARIANCE ESTIMATE DEGREES OF FREEDOM	EQUAL VARIANCE ESTIMATE 2-TAIL PROB.	SEPARATE VARIANCE ESTIMATE t VALUE	SEPARATE VARIANCE ESTIMATE DEGREES OF FREEDOM	SEPARATE VARIANCE ESTIMATE 2-TAIL PROB.
PCMEALS % OF 1980-81 STUDENTS EATING FREE LUNCH												
GROUP 1	13	69.8231	20.101	5.577	2.27	0.161	-0.92	24	0.367	-0.92	21.08	0.369
GROUP 2	13	74.8000	13.469	3.736								
PWHOLE PERCENT NON-BLACK OTHERS IN SCHOOL												
GROUP 1	13	30.8082	11.7089	3.2478	1.62	0.972	-0.96	24	0.675	-0.90	24.00	0.379
GROUP 2	13	33.8073	11.202	3.107								
ADM SCHOOL'S DC-01 AVERAGE DAILY MEMBERSHIP												
GROUP 1	13	483.1899	190.1241	52.7478	1.71	0.767	-0.89	24	0.870	-0.89	23.69	0.878
GROUP 2	13	512.9200	350.559	63.936								
PABA 1980-81 AVERAGE DAILY ATTENDANCE IN %												
GROUP 1	13	89.6846	2.7227	0.7551	1.61	0.494	0.96	24	0.347	0.96	24.00	0.347
GROUP 2	13	89.7671	3.512	0.697								
PDISSUS SUSPENSION RATE FOR ALL REASONS--E APM												
GROUP 1	13	6.9923	2.4918	2.0058	1.75	0.789	-0.03	24	0.998	-0.03	23.71	0.998
GROUP 2	13	6.6611	8.296	2.299								
PSPECS SPECIAL CCAPDP.AL PUPILS.WAIE AS % CP ADP												
GROUP 1	13	2.8974	2.2369	0.6207	39.37	0.0000	-1.04	24	0.333	-1.04	13.05	0.324
GROUP 2	13	11.0184	19.362	5.353								
PTEACHR TEACHER ABSENCE RATE FOR SCHOOL--DC-P19												
GROUP 1	13	6.5692	1.2249	0.3397	1.63	0.460	-1.01	24	0.179	-1.00	22.99	0.179
GROUP 2	13	7.2997	3.267	0.897								
IDNCBALL SCHL AVER. DC-01 CIDS B.CCMP.PCS1-1 PCP												
GROUP 1	13	46.4923	8.9621	2.4855	7.49	0.000	1.84	24	0.078	1.99	14.47	0.069
GROUP 2	13	43.6789	3.833	0.787								
IDNCEBIN SCHL.AVER.PINCBITY CIDS B.CCMP.PCS1-1 ACE												
GROUP 1	13	49.4834	5.243	1.454	3.10	0.061	1.99	24	0.058	1.99	15.61	0.063
GROUP 2	13	47.0711	2.933	0.814								
IDNCBLAI SCHL.AVER.WHITE CIDS B.CCMP.PCS1-1 ACE												
GROUP 1	13	49.9823	4.498	1.247	1.17	0.789	1.19	24	0.248	1.19	23.85	0.248
GROUP 2	13	47.9461	4.199	1.151								
IDNCEJPP AV.PINCBITY-JAPANESE B.CCMP.PCS1-1 ACE												
GROUP 1	13	49.0988	2.499	0.693	1.32	0.679	1.23	24	0.233	1.24	23.87	0.223
GROUP 2	13	48.4784	3.082	0.854								
BDNCBALL AVER.CIDS B.CCMP.ACE GAIN SCORE--ALL SCH												
GROUP 1	13	0.4993	3.116	0.864	1.62	0.369	0.43	24	0.670	0.42	24.00	0.670
GROUP 2	13	-0.0844	3.834	0.953								
IDNCEBIN AVER.PINCBITY CIDS B.CCMP.GAIN SCORE												
GROUP 1	13	1.2181	3.833	0.841	1.34	0.622	1.81	24	0.082	1.82	23.93	0.081
GROUP 2	13	-1.2197	3.568	0.973								
IDNCBINT AVER.DC-01 WHITE CIDS B.CCMP. GAIN SCORE												
GROUP 1	13	1.7888	3.689	1.013	1.08	0.871	-2.86	24	0.001	-2.86	23.86	0.001
GROUP 2	13	5.4139	3.696	0.997								
IDNCEJPP AV.PINCBITY LESS AV.WHITE CCMP.ACE GAIN												
GROUP 1	13	2.0268	2.039	0.588	1.69	0.930	9.84	24	0.000	9.44	23.99	0.000
GROUP 2	13	-4.6322	1.987	0.551								
PPOTAP PERCENT CP TOTAL THAT ARE HISPANICIES												
GROUP 1	13	3.9884	3.644	0.958	7.17	0.004	-0.23	24	0.821	-0.22	23.45	0.826
GROUP 2	13	4.3198	4.949	1.239								

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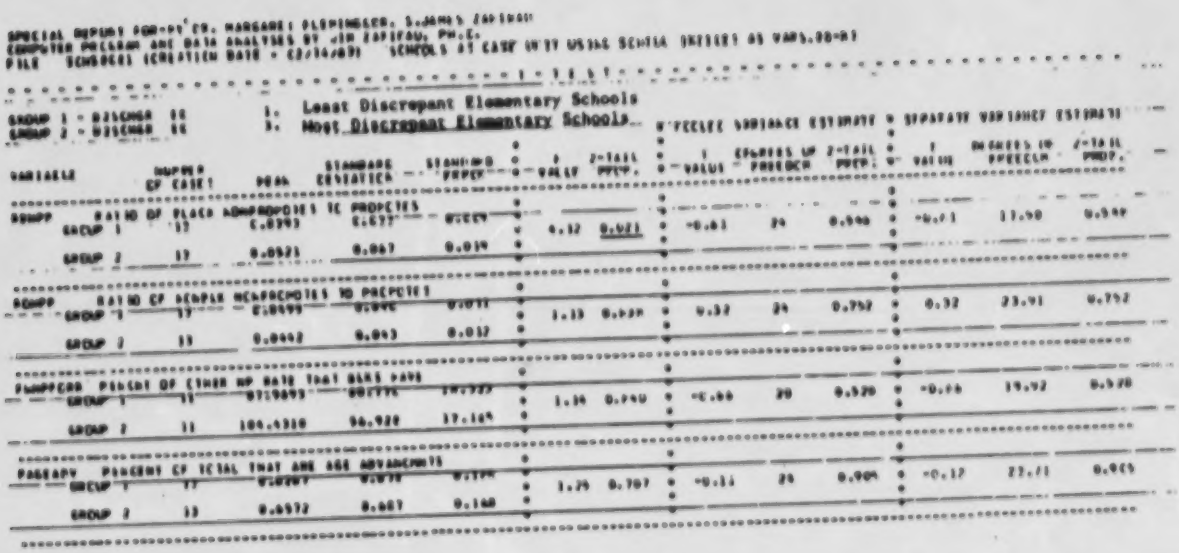
APPENDIX B (continued)



1. Least Discrepant Elementary Schools
2. Most Discrepant Elementary Schools

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	t VALUE	2-TAIL PROB.	t VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	t VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
GROUP	RATIO OF PLACE ADMINISTRATORS TO PROFESSIONALS											
GROUP 1	13	0.0393	0.077	0.021	0.32	0.751	-0.83	24	0.846	-0.71	13.50	0.949
GROUP 2	13	0.0521	0.067	0.019								
GROUP	RATIO OF PEOPLE MEASUREMENTS TO PRECEIVE											
GROUP 1	13	0.0599	0.094	0.011	1.13	0.539	0.32	24	0.752	0.32	23.91	0.752
GROUP 2	13	0.0442	0.043	0.012								
PUPPETEER	PERCENT OF OTHER MP DATA THAT DOES PASS											
GROUP 1	13	97.1869	5.0715	1.4067	1.34	0.940	-0.66	20	0.520	-0.66	19.92	0.520
GROUP 2	13	100.4310	96.920	17.169								
PASSAPV	PERCENT OF TOTAL THAT ARE AGE ADVANCEMENTS											
GROUP 1	13	0.0207	0.038	0.1154	1.29	0.787	-0.34	24	0.909	-0.17	22.71	0.869
GROUP 2	13	0.0572	0.067	0.168								

Group 1: Least Discrepant 25% of Schools--Highest 25% (positive or least negative) valence elementary schools in terms of minority to white reading comprehension gain score discrepancy (average minority NCE gain score minus average white NCE gain score).

Group 2: Most Discrepant 25% of Elementary Schools--Lowest 25% (most negative) valence elementary schools in terms of minority to white reading comprehension gain score discrepancy (average minority NCE gain score minus average white NCE gain score).

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APPENDIX C

APPENDIX C

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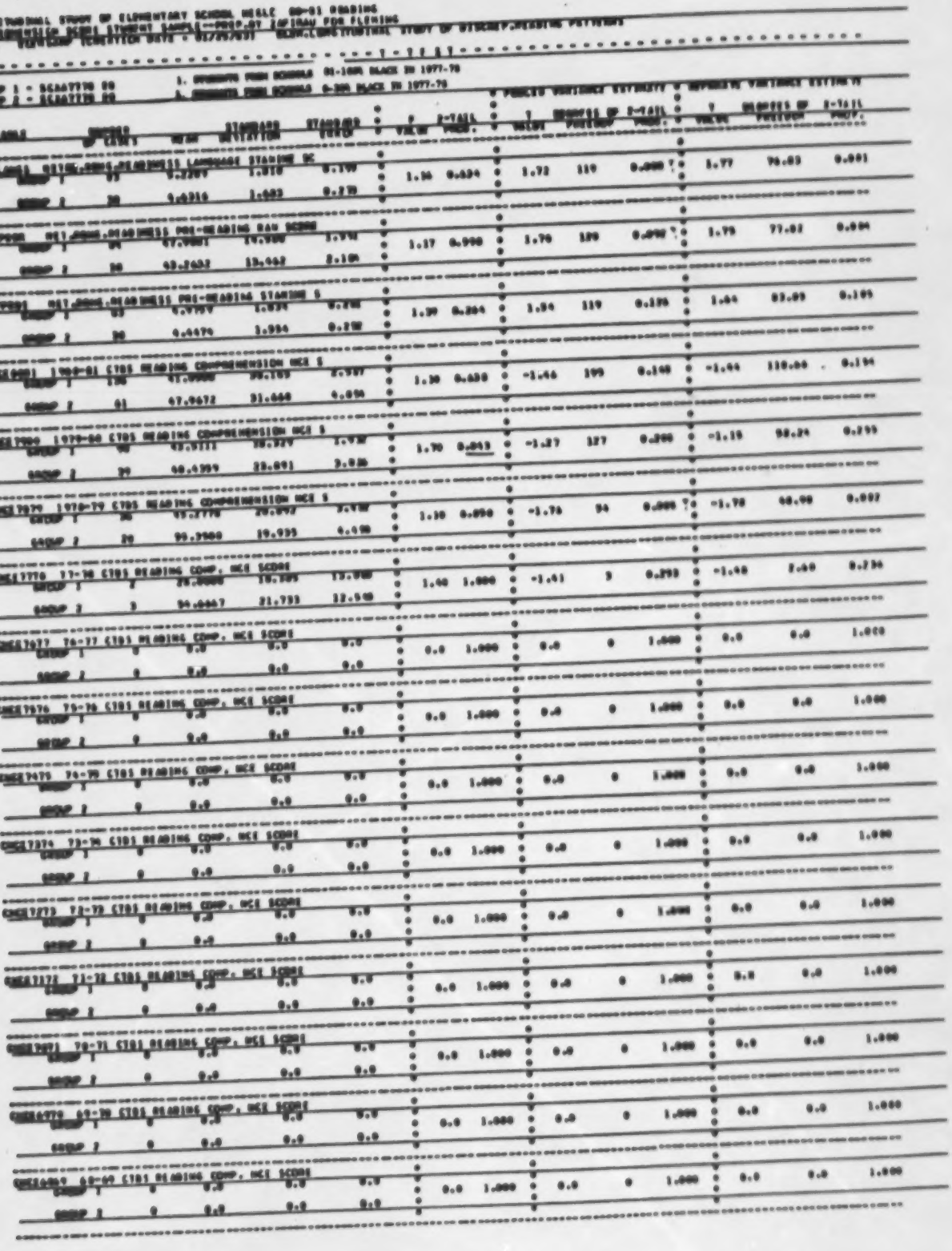
APPENDIX C (continued)



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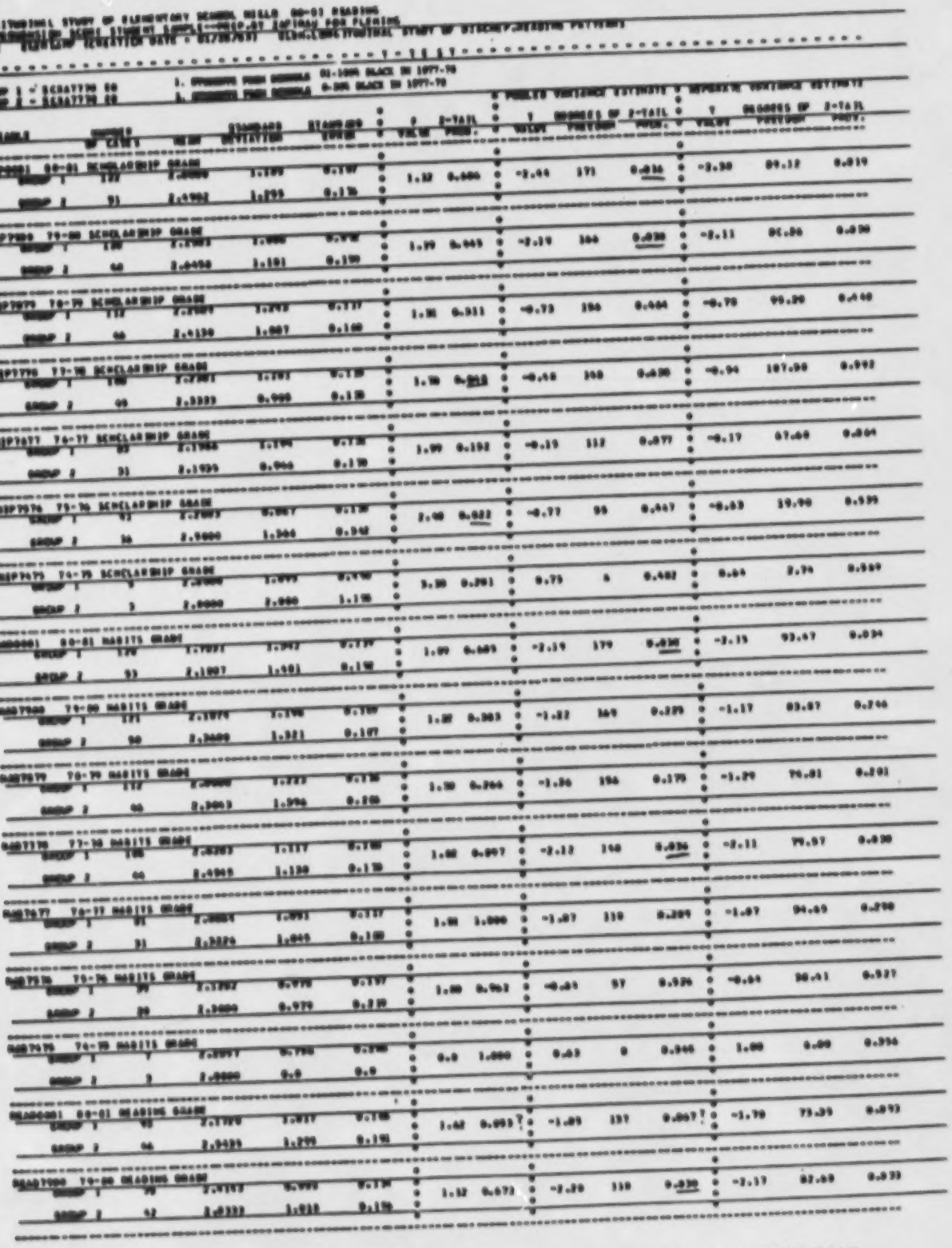
APPENDIX C (continued)



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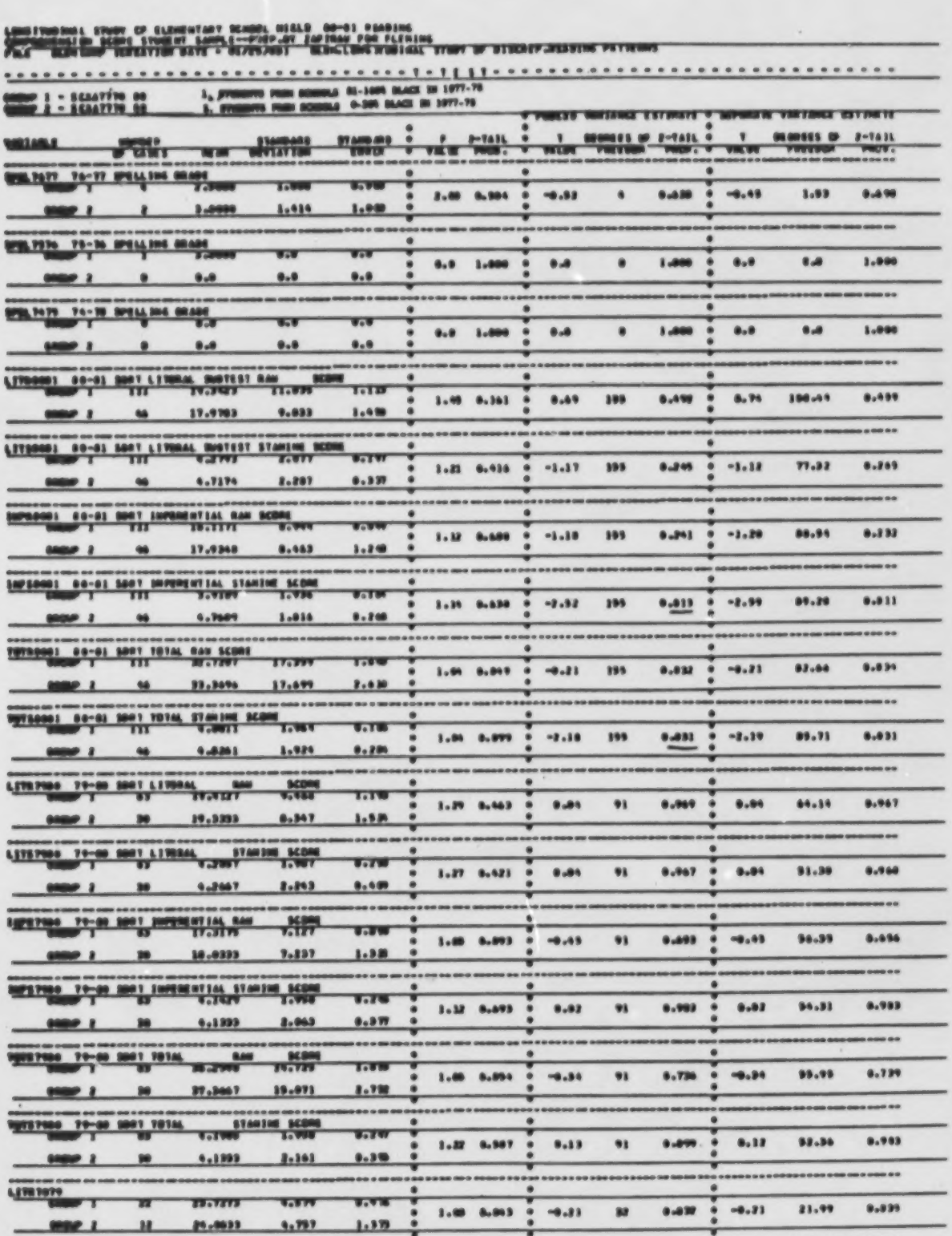
APPENDIX C (continued)



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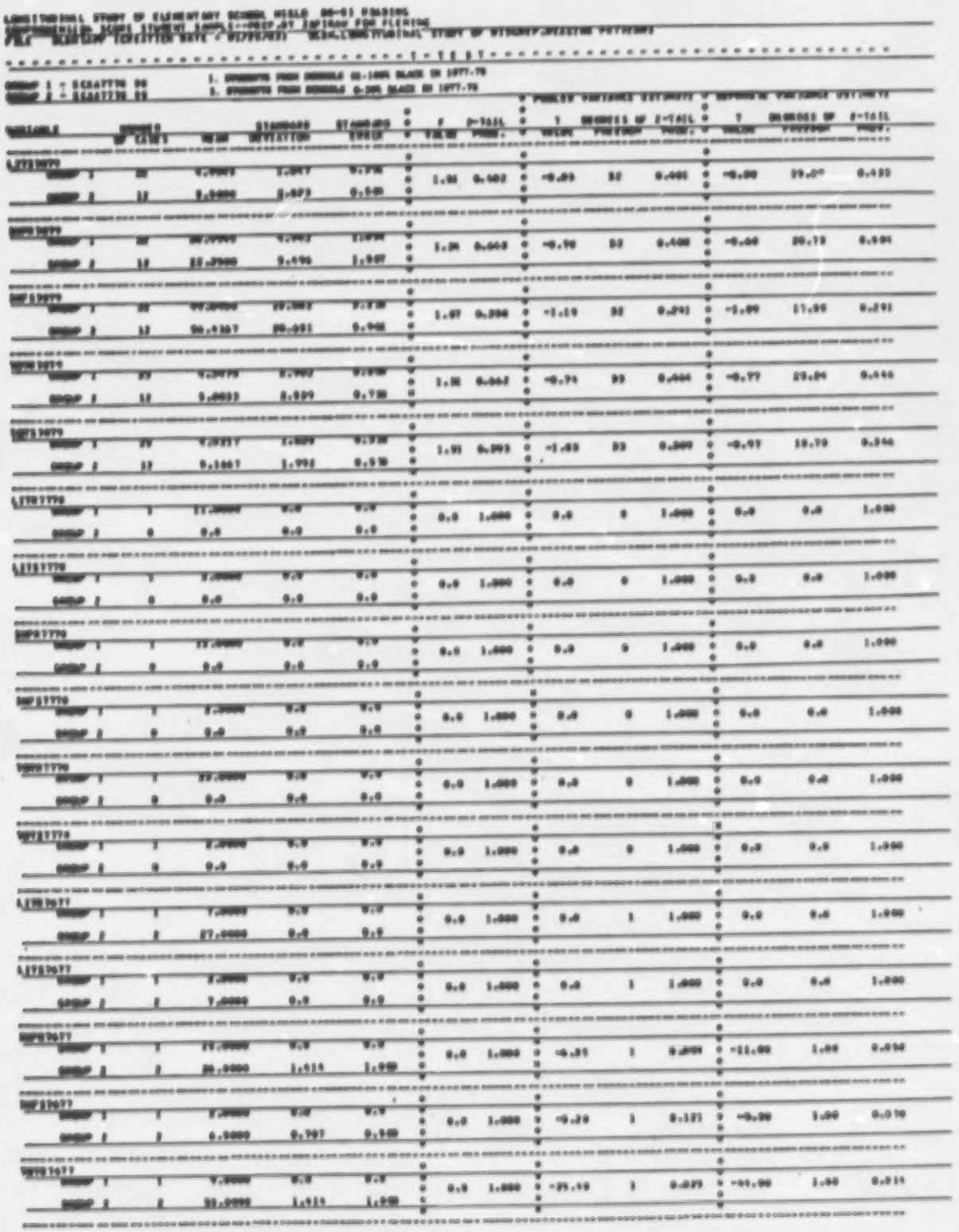
APPENDIX C (continued)



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APPENDIX C (continued)

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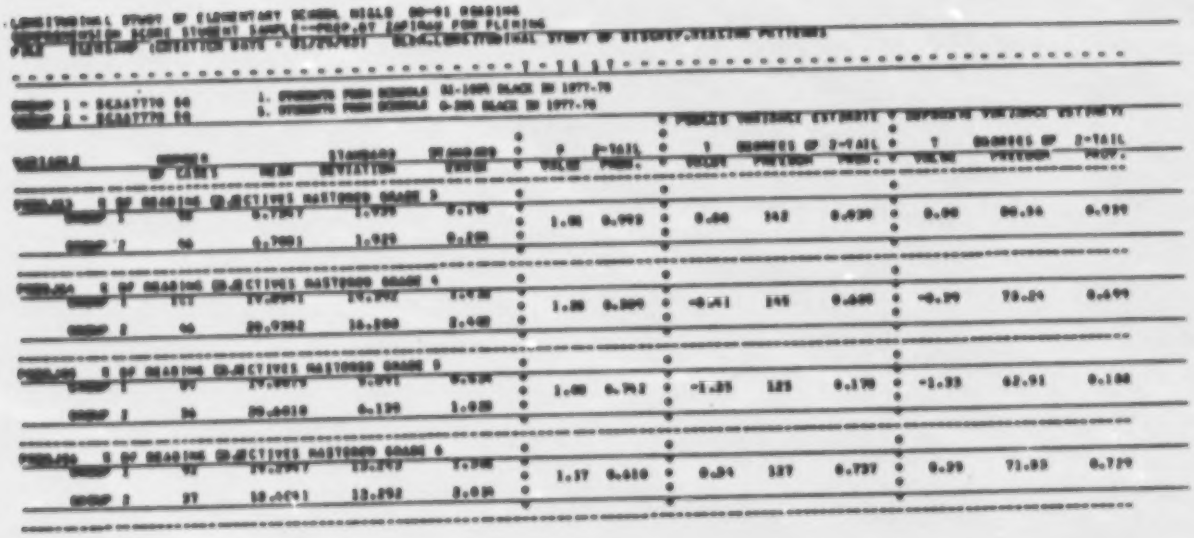

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APPENDIX D

APPENDIX D

LONGITUDINAL STUDY OF ELEMENTARY SCHOOL NEGRO BOY-GIRL RELATIONS
COMPREHENSIVE SCHOOL STUDENT SAMPLE--PREPARED BY ZAFIRAS FOR ILLINOIS
FILE FLOWSAMP (CREATION DATE = 01/25/83) ELEM.LONGITUDINAL STUDY OF DISCRIP.ANALYSIS PATTERNS

CROSSTABULATION OF SCRATTTP BY TGRADE
SCRATTTP = % BLACKS IN FIRST 27-29 SCHOOL ATTENDED
TGRADE = GRADE DURING 1980-81 SCHOOL YEAR
PAGE 1 OF 1

SCRATTTP	COUNT / ROW PCT / COL PCT / TOT PCT	TGRADE 4	TGRADE 5	ROW TOTAL
1		58	40	98
81-100% BLACK		59.2	40.8	66.7
		73.4	58.8	
		39.5	27.2	
2		0	1	1
61-80% BLACK		0.0	100.0	0.7
		0.0	1.5	
		0.0	0.7	
3		1	5	6
41-60% BLACK		16.7	83.3	4.1
		1.3	7.4	
		0.7	3.4	
4		1	0	1
21-40% BLACK		100.0	0.0	0.7
		1.3	0.0	
		0.7	0.0	
5		19	22	41
0-20% BLACK		46.3	53.7	27.9
		24.1	32.4	
		12.9	15.0	
COLUMN TOTAL		79	68	147
		53.7	46.3	100.0

4 OUT OF 10 (40.0%) OF THE VALID CELLS HAVE EXPECTED CELL FREQUENCY LESS THAN 5.0.
MINIMUM EXPECTED CELL FREQUENCY = 0.463
RAW CHI SQUARE = 7.41087 WITH 4 DEGREES OF FREEDOM. SIGNIFICANCE = 0.1157
CRAMER'S V = 0.22059
CONTINGENCY COEFFICIENT = 0.21907
LAMBDA (ASYMMETRIC) = 0.0 WITH SCRATTTP DEPENDENT. = 0.11765 WITH TGRADE DEPENDENT.
LAMBDA (SYMMETRIC) = 0.06038
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.03465 WITH SCRATTTP DEPENDENT. = 0.04141 WITH TGRADE DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.03777
KENDALL'S TAU B = 0.13451. SIGNIFICANCE = 0.0682
KENDALL'S TAU C = 0.13087. SIGNIFICANCE = 0.0682
GAMMA = 0.26892
SOMER'S D (ASYMMETRIC) = 0.13161 WITH SCRATTTP DEPENDENT. = 0.13747 WITH TGRADE DEPENDENT.
SOMER'S D (SYMMETRIC) = 0.13447
ETA = 0.17011 WITH SCRATTTP DEPENDENT. = 0.22493 WITH TGRADE DEPENDENT.
PEARSON'S R = 0.17011 SIGNIFICANCE = 0.0739

NUMBER OF MISSING OBSERVATIONS = 907

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APPENDIX D (continued)

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LONGITUDINAL STUDY OF ELEMENTARY SCHOOL YIELD  RD-81 PHASING
COMPREHENSIVE SCHOOL STUDENT SAMPLE--PREP.BY ZAPIRAU FLW PLEMIX
FILE   FLEMSAMP (CREATION DATE = 01/25/83)   FLEM.LONGITUDINAL STUDY OF DISCRIP.RACING PATTERNS

* * * * * * * * * * * * * * * * * * *  C R O S S T A B U L A T I O N  O F  * * * * * * * * * * * * * * * * * *
    SCRA7778  % BLACKS IN FIRST 71-79 SCHOOL ATTENDED      BY  CGRADE    GRADE DURING 1981-82 SCHOOL YEAR--WAVE 12
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * PAGE  1 OF  1
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SCRA7778	CGRADE 5	CGRADE 6	ROW TOTAL
1 01-100% BLACK	55	39	94
	58.5	41.5	65.7
	78.9	60.0	
	38.5	27.3	
2 61-80% BLACK	0	1	1
	0.0	100.0	0.7
	0.0	1.5	
	0.0	0.7	
3 41-60% BLACK	1	5	6
	16.7	83.3	4.2
	1.3	7.7	
	0.7	3.5	
4 21-40% BLACK	1	0	1
	100.0	0.0	0.7
	1.3	0.0	
	0.7	0.0	
5 00-20% BLACK	21	20	41
	51.2	48.8	28.7
	26.9	30.8	
	14.7	14.0	
COLUMN TOTAL	78	65	143
	54.5	45.5	100.0

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    4 OUT OF    10 ( 40.0%) OF THE VALID CELLS HAVE EXPECTED CELL FREQUENCY LESS THAN 5.0.
MINIMUM EXPECTED CELL FREQUENCY =  0.455
RAW CHI SQUARE =     6.28458 WITH      4 DEGREES OF FREEDOM.  SIGNIFICANCE =  0.1799
CRAMER'S V =  0.20964
CONTINGENCY COEFFICIENT =  0.20918
LAMBDA (ASYMMETRIC) =  0.0      WITH SCRA7778 DEPENDENT.          =  0.07692 WITH CGRADE   DEPENDENT.
LAMBDA (SYMMETRIC) =  0.04386
UNCERTAINTY COEFFICIENT (ASYMMETRIC) =  0.01095 WITH SCRA7778 DEPENDENT.          =  0.03685 WITH CGRADE   DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) =  0.03329
KENDALL'S TAU B =  0.04366.     SIGNIFICANCE =  0.1919
KENDALL'S TAU C =  0.08207.     SIGNIFICANCE =  0.1919
GAMMA =  0.17480
SOMERS'S D (ASYMMETRIC) =  0.08678 WITH SCRA7778 DEPENDENT.          =  0.08954 WITH CGRADE   DEPENDENT.
SOMERS'S D (SYMMETRIC) =  0.0875
ETA =  0.07163 WITH SCRA7778 DEPENDENT.          =  0.20927 WITH CGRADE   DEPENDENT.
PEARSON'S R =  0.07163  SIGNIFICANCE =  0.1976

NUMBER OF MISSING OBSERVATIONS =  411
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LONGITUDINAL STUDY OF ELEMENTARY SCHOOL MILIEU [illegible]
COMPREHENSIVE SCALE STUDENT SAMPLE--PREP.BY ZAFIRAU FOR PERMIAT
FILE ELEMSAMP (CREATION DATE = 03/29/83) ELEM.LONGITUDINAL STUDY OF DISCIP.PRACTICE PATTERNS

CROSSTABULATION OF SCRA7778 % BLACKS IN FIRST 11-7th SCHOOL ATTENDED BY SEX 1=MALE 2=FEMALE -999=MISSING DATA

PAGE 1 OF 1

SCRA7778	SEX	1=MALE	2=FEMALE	ROW TOTAL
1 81-100% BLACK	COUNT	71	62	133
	ROW PCT	53.4	46.6	62.9
	COL PCT	62.3	62.6	
	TOT PCT	33.9	29.1	
2 61-80% BLACK	COUNT	4	1	5
	ROW PCT	80.0	20.0	2.3
	COL PCT	3.5	1.0	
	TOT PCT	1.9	0.5	
3 41-60% BLACK	COUNT	8	4	12
	ROW PCT	66.7	33.3	5.6
	COL PCT	7.0	4.0	
	TOT PCT	3.8	1.9	
4 21-40% BLACK	COUNT	1	1	2
	ROW PCT	50.0	50.0	0.9
	COL PCT	0.9	1.0	
	TOT PCT	0.5	0.5	
5 0%-20% BLACK	COUNT	30	31	61
	ROW PCT	49.2	50.8	28.6
	COL PCT	26.3	31.3	
	TOT PCT	14.1	14.6	
COLUMN TOTAL		114	99	213
		53.5	46.5	100.0

4 OUT OF 20 (40.0%) OF THE VALID CELLS HAVE EXPECTED CELL FREQUENCY LESS THAN 5.0.

MINIMUM EXPECTED CELL FREQUENCY = 0.930
RAW CHI SQUARE = 2.71587 WITH 4 DEGREES OF FREEDOM. SIGNIFICANCE = 0.6004

CRAMER'S V = 0.11292
CONTINGENCY COEFFICIENT = 0.11221
LAMBDA (ASYMMETRIC) = 0.0 WITH SCRA7778 DEPENDENT. = 0.01010 WITH SEX DEPENDENT.
LAMBDA (SYMMETRIC) = 0.00959
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.00709 WITH SCRA7778 DEPENDENT. = 0.00970 WITH SEX DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.00819
KENDALL'S TAU B = 0.01318. SIGNIFICANCE = 0.9979
KENDALL'S TAU C = 0.01355. SIGNIFICANCE = 0.9979
GAMMA = 0.03363
SOMER'S D (ASYMMETRIC) = 0.01263 WITH SCRA7778 DEPENDENT. = 0.01071 WITH SEX DEPENDENT.
SOMER'S D (SYMMETRIC) = 0.01167
ETA = 0.03327 WITH SCRA7778 DEPENDENT. = 0.11292 WITH SEX DEPENDENT.
PEARSON'S R = 0.03329 SIGNIFICANCE = 0.3146

NUMBER OF MISSING OBSERVATIONS = 441

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LONGITUDINAL STUDY OF ELEMENTARY SCHOOL NEGRO 80-81 REALIGN.
COMPREHENSIVE SCIENCE STUDENT SAMPLE--PREP.BY ZAPIRAU FOR FLEMING
FILE FLEMSAPP (CREATION DATE = 01/25/83) FLEM.LONGITUDINAL STUDY OF DISCRIP.REACING PATTERNS

C R O S S T A B U L A T I O N OF SCRA7778 X PLACES IN FIRST 77-78 SCHOOL ATTENDED BY RACEW 1=WHITE, 2=BLK, 3=PLY 4=ASIAN 5=HISP PAGE 1 OF 1

SCRA7778	RACEW	WHITE	BLACK	HISPANIC	ROW TOTAL
01-100% BLACK	1	2	130	1	133
		1.5	97.7	0.8	62.4
		3.4	90.3	10.0	
		0.9	61.0	0.5	
61-80% BLACK	2	2	3	0	5
		40.0	60.0	0.0	2.3
		3.4	2.1	0.0	
		0.9	1.4	0.0	
41-60% BLACK	3	4	8	0	12
		33.3	66.7	0.0	5.6
		6.8	5.6	0.0	
		1.9	3.8	0.0	
21-40% BLACK	4	1	0	1	2
		50.0	0.0	50.0	0.9
		1.7	0.0	10.0	
		0.5	0.0	0.5	
02-20% BLACK	5	50	3	8	61
		82.0	4.9	13.1	28.6
		84.7	2.1	80.0	
		23.5	1.4	3.8	
	COLUMN TOTAL	59	144	10	213
		27.7	67.6	4.7	100.0

0 OUT OF 15 (60.0%) OF THE VALID CELLS HAVE EXPECTED CELL FREQUENCY LESS THAN 5.0.
MINIMUM EXPECTED CELL FREQUENCY = 0.094
RAW CHI SQUARE = 178.95454 WITH 8 DEGREES OF FREEDOM. SIGNIFICANCE = 0.0
CRAMER'S V = 0.64359
CONTINGENCY COEFFICIENT = 0.67311 = 0.69569 WITH RACEW DEPENDENT.
LAMBDA (ASYMMETRIC) = 0.68750 WITH SCRA7778 DEPENDENT.
LAMBDA (SYMMETRIC) = 0.69128 = 0.68796 WITH RACEW DEPENDENT.
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.49042 WITH SCRA7778 DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.54269
KENDALL'S TAU B = -0.69870. SIGNIFICANCE = 0.0000
KENDALL'S TAU C = -0.69247. SIGNIFICANCE = 0.0000
GAMMA = -0.76297
SOMER'S D (ASYMMETRIC) = -0.63585 WITH SCRA7778 DEPENDENT. = -0.56277 WITH RACEW DEPENDENT.
SOMER'S D (SYMMETRIC) = -0.59708
ETA = 0.88487 WITH SCRA7778 DEPENDENT. = 0.39643 WITH RACEW DEPENDENT.
PEARSON'S R = -0.36779 SIGNIFICANCE = 0.0000

NUMBER OF MISSING OBSERVATIONS = 491

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LONGITUDINAL STUDY OF [illegible]
COMPREHENSION SCORE STUDENT SAMPLE--PRIMARY ANALYSIS FILE[illegible]
FILE ELEMSAMP (CREATION DATE = 03/29/91) ELEMENTARY LONGITUDINAL STUDY OF DISCIPLINARY PATTERNS

CROSSTABULATION OF SCORE777P BY LUNCHCS (0=NO 1=PAID 2=REDUCED PRICE 3=NONPAID 4=NO SCORE777P = PLACES IN FIRST 72-HR SCHOOL ATTENDED) BY LUNCHCS 0=NO 1=PAID 2=RED.PRICE 3=NONPAID 4=NO RESP PAGE 1 OF 1

SCORE777P	LUNCHCS	0	1	2	3	ROW TOTAL
1		107	7	15	129	
01-100% BLACK		82.9	5.4	11.6	64.2	
		64.8	53.8	65.2		
		53.2	3.5	7.5		
2		4	1	0	5	
61-80% BLACK		80.0	20.0	0.0	2.5	
		2.4	7.7	0.0		
		2.0	0.5	0.0		
3		10	1	0	11	
41-60% BLACK		90.9	9.1	0.0	5.5	
		6.1	7.7	0.0		
		5.0	0.5	0.0		
4		1	1	0	2	
21-40% BLACK		50.0	50.0	0.0	1.0	
		0.6	7.7	0.0		
		0.5	0.5	0.0		
5		43	3	8	54	
0%-20% BLACK		79.6	5.6	14.8	26.9	
		26.1	23.1	34.8		
		21.4	1.5	4.0		
COLUMN TOTAL		165	13	23	201	
		82.1	6.5	11.4	100.0	

0 OUT OF 10 (60.0%) OF THE VALUE CELLS HAVE EXPECTED CELL FREQUENCY LESS THAN 5.0.
MINIMUM EXPECTED CELL FREQUENCY = 0.129
RAW CHI SQUARE = 10.08785 WITH 8 DEGREES OF FREEDOM. SIGNIFICANCE = 0.2208
CRAMER'S V = 0.16305
CONTINGENCY COEFFICIENT = 0.22470
LAMBDA (ASYMMETRIC) = 0.0 WITH SCORE777P DEPENDENT. = 0.0 WITH LUNCHCS DEPENDENT.
LAMBDA (SYMMETRIC) = 0.0
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.02351 WITH SCORE777P DEPENDENT. = 0.03699 WITH LUNCHCS DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.02951
KENDALL'S TAU A = 0.03161. SIGNIFICANCE = 0.3183
KENDALL'S TAU C = 0.01986. SIGNIFICANCE = 0.3183
GAMMA = 0.07772
SOMERS'S D (ASYMMETRIC) = 0.04015 WITH SCORE777P DEPENDENT. = 0.02695 WITH LUNCHCS DEPENDENT.
SOMERS'S D (SYMMETRIC) = 0.03041
ETA = 0.03906 WITH SCORE777P DEPENDENT. = 0.05932 WITH LUNCHCS DEPENDENT.
PEARSON'S R = 0.03614 SIGNIFICANCE = 0.2954

NUMBER OF MISSING OBSERVATIONS = 993

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LONGITUDINAL STUDY OF ELEMENTARY SCHOOL MIDDLE 80-81 READING
COMPREHENSIVE SCORE STUDENT SAMPLE--PREP.BY JOSEPH DIA FLEMING
FILE   ELEMSAMP (CREATION DATE = 01/25/83)   ELEM.LONGITUDINAL STUDY OF DISCRIM.READING PATTERNS

* * * * * * * * * * * * * * * * * * * *   C R O S S T A B U L A T I O N   O F   * * * * * * * * * * * * * * * * * * *
   SCR47778  % BLACKS IN FIRST 72-74 SCHOOL ATTENDED      BY  BIRTHPLACE   BIRTHPLACE--1=CLEV 2=CUYA 3=OH 4=US 5=FOR
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * PAGE  1 OF  1

                  BIRTHPLACE
          COUNT   |
       ROW PCT    | CLEVELAND CUYAHOGA CNTD      OTHER     FOREIGN     ROW
       COL PCT    |    ID        COUNTY          U.S.      COUNTRY     TOTAL
       TOT PCT    |     1   |     2   |     3   |     4   |     5   |
SCR47778          |---------|---------|---------|---------|---------|
                1 |   174   |     1   |     1   |     6   |     0   |   182
  81-100% BLACK   |  93.9   |   0.8   |   0.8   |   4.5   |   0.0   |  62.6
                  |  68.3   |  16.7   |  50.0   |  54.5   |   0.0   |
                  |  58.8   |   0.5   |   0.5   |   2.8   |   0.0   |
                -|---------|---------|---------|---------|---------|
                2 |     4   |     1   |     0   |     0   |     0   |     5
  61-80% BLACK    |  80.0   |  20.0   |   0.0   |   0.0   |   0.0   |   2.4
                  |   2.1   |  16.7   |   0.0   |   0.0   |   0.0   |
                  |   1.9   |   0.5   |   0.0   |   0.0   |   0.0   |
----------------- |---------|---------|---------|---------|---------|
                3 |     9   |     1   |     1   |     1   |     0   |    12
  41-60% BLACK    |  75.0   |   8.3   |   8.3   |   8.3   |   0.0   |   5.7
                  |   4.8   |  16.7   |  50.0   |   9.1   |   0.0   |
                  |   4.3   |   0.5   |   0.5   |   0.5   |   0.0   |
                -|---------|---------|---------|---------|---------|
                4 |     2   |     0   |     0   |     0   |     0   |     2
  21-40% BLACK    | 100.0   |   0.0   |   0.0   |   0.0   |   0.0   |   0.9
                  |   1.1   |   0.0   |   0.0   |   0.0   |   0.0   |
                  |   0.9   |   0.0   |   0.0   |   0.0   |   0.0   |
                -|---------|---------|---------|---------|---------|
                5 |    48   |     4   |     0   |     9   |     4   |    60
  0%-20% BLACK    |  80.0   |   6.7   |   0.0   |  15.0   |   6.7   |  28.4
                  |  25.7   |  57.1   |   0.0   |  35.4   | 100.0   |
                  |  22.7   |   1.9   |   0.0   |   4.3   |   1.9   |
----------------- |---------|---------|---------|---------|---------|
          COLUMN  |   187   |     7   |     2   |    11   |     4   |   211
          TOTAL   |  88.6   |   3.3   |   0.9   |   5.2   |   1.9   | 100.0

   21 OUT OF    25 ( 84.0%) OF THE VALID CELLS HAVE EXPECTED CELL FREQUENCY LESS THAN 5.0.
MINIMUM EXPECTED CELL FREQUENCY =  0.019
RAW CHI SQUARE =    29.65627 WITH    16 DEGREES OF FREEDOM.  SIGNIFICANCE =  0.0199
CRAMER'S V =  0.18795
CONTINGENCY COEFFICIENT =  0.35104
LAMBDA (ASYMMETRIC) =  0.08861 WITH SCR47778 DEPENDENT.          =  0.0     WITH BIRTHPLACE DEPENDENT.
LAMBDA (SYMMETRIC) =  0.06796
UNCERTAINTY COEFFICIENT (ASYMMETRIC) =  0.06145 WITH SCR47778 DEPENDENT.          =  0.11794 WITH BIRTHPLACE DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) =  0.08080
KENDALL'S TAU B =  -0.20693.     SIGNIFICANCE =  0.0331
KENDALL'S TAU C =  -0.09911.     SIGNIFICANCE =  0.0011
GAMMA =  -0.49039
SOMER'S D (ASYMMETRIC) =  -0.31617 WITH SCR47778 DEPENDENT.          =  -0.12691 WITH BIRTHPLACE DEPENDENT.
SOMER'S D (SYMMETRIC) =  -0.18112
ETA =  0.26597 WITH SCR47778 DEPENDENT.          =  0.20168 WITH BIRTHPLACE DEPENDENT.
PEARSEN'S R =  -0.19099   SIGNIFICANCE =  0.0027

NUMBER OF MISSING OBSERVATIONS =  493
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LONGITUDINAL STUDY OF ELEMENTARY SCHOOL NEEDS AND READING.
COMPREHENSIVE SCALE STUDENT SAMPLE--PARTIAL BY ZAPIRAU DATA FILE(PF
FILE ELEMSAMP (CREATION DATE = 03/29/83) ELEM.LONGITUDINAL STUDY OF DISEASE,READING PATTERNS

CROSSTABULATION OF SCHA7778 BY T2STAT9 SPRING 1981 CIPS READING COMP. STANINE
SCHA7778 % BLACKS IN FIRST 22-24 SCHOOL ATTENDED BY T2STAT9 PAGE 1 OF 1

SCHA7778	T2STAT9	1	2	3	4	5	ROW TOTAL
1 01-10% BLACK	COUNT	20	59	32	14	8	133
	ROW PCT	15.0	44.4	24.1	10.5	6.0	62.4
	COL PCT	60.6	69.4	52.5	73.0	57.1	
	TOT PCT	9.4	27.7	15.0	6.6	3.8	
2 61-80% BLACK	COUNT	0	1	3	0	1	5
	ROW PCT	0.0	20.0	60.0	0.0	20.0	2.3
	COL PCT	0.0	1.2	4.9	3.0	7.1	
	TOT PCT	0.0	0.5	1.4	3.0	0.5	
3 41-60% BLACK	COUNT	3	6	3	0	0	12
	ROW PCT	25.0	50.0	25.0	0.0	0.0	5.6
	COL PCT	9.1	7.1	4.9	3.0	0.0	
	TOT PCT	1.4	2.8	1.4	3.0	0.0	
4 21-40% BLACK	COUNT	0	1	0	1	0	2
	ROW PCT	0.0	50.0	0.0	50.0	0.0	0.9
	COL PCT	0.0	1.2	0.0	3.0	0.0	
	TOT PCT	0.0	0.5	0.0	0.5	0.0	
5 0%-20% BLACK	COUNT	10	18	23	5	5	61
	ROW PCT	16.4	29.5	37.7	8.2	8.2	28.6
	COL PCT	30.3	21.2	37.7	25.0	35.7	
	TOT PCT	4.7	8.5	10.8	2.3	2.3	
COLUMN TOTAL		33	85	61	20	14	213
		15.5	39.9	28.6	9.4	6.6	100.0

16 OUT OF 25 (64.0%) OF THE VALID CELLS HAVE EXPECTED CELL FREQUENCY LESS THAN 5.0.

MINIMUM EXPECTED CELL FREQUENCY = 0.171
RAW CHI SQUARE = 18.05586 WITH 16 DEGREES OF FREEDOM. SIGNIFICANCE = 0.3208
CRAMER'S V = 0.16550
CONTINGENCY COEFFICIENT = 0.27954
LAMBDA (ASYMMETRIC) = 0.0 WITH SCHA7778 DEPENDENT. = 0.05469 WITH T2STAT9 DEPENDENT.
LAMBDA (SYMMETRIC) = 0.03369
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.04946 WITH SCHA7778 DEPENDENT. = 0.03241 WITH T2STAT9 DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.03884
KENDALL'S TAU B = 0.05492. SIGNIFICANCE = 0.1927
KENDALL'S TAU C = 0.04226. SIGNIFICANCE = 0.1927
GAMMA = 0.08821
SOMERS'S D (ASYMMETRIC) = 0.04606 WITH SCHA7778 DEPENDENT. = 0.06494 WITH T2STAT9 DEPENDENT.
SOMERS'S D (SYMMETRIC) = 0.05428
ETA = 0.16814 WITH SCHA7778 DEPENDENT. = 0.10493 WITH T2STAT9 DEPENDENT.
PEARSON'S R = 0.09112 SIGNIFICANCE = 0.0921

NUMBER OF MISSING OBSERVATIONS = 441

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LONGITUDINAL STUDY OF ELEMENTARY SCHOOL NEEDS AD-HOC HEADING
COMPREHENSIVE SCORE STUDENT SAMPLE--PREP.BY ZABRAU FOR FLEMING
FILE ELEMSAMP (CREATION DATE = 03/25/83) ELEM.LONGITUDINAL STUDY OF DISCRIP.PHASING PATTERNS

CROSSTABULATION OF SCRAFFTR BLACKS IN FIRST 77-78 SCHOOL ATTENDED BY RETAUDS MENTAL.RETARDEDNESS AUDITORY DISC.STAFF
PAGE 1 OF 1

	RETAUDS										ROW TOTAL
COUNT / ROW PCT / COL PCT / TOT PCT	1	2	3	4	5	6	7	8	9		
SCRAFFTR											
01-100% BLACK	1	1	11	21	22	14	1	6	5		82
	1.2	1.2	13.4	25.6	26.8	17.1	1.2	7.3	6.1		61.7
	33.3	14.3	52.4	44.7	44.0	70.0	25.0	100.0	62.5		
	0.8	0.8	8.3	15.8	16.5	10.5	0.8	4.5	3.8		
81-90% BLACK	1	0	0	1	0	1	0	0	0		3
	33.3	0.0	0.0	33.3	0.0	33.3	0.0	0.0	0.0		2.3
	33.3	0.0	0.0	2.6	0.0	5.0	0.0	0.0	0.0		
	0.8	0.0	0.0	0.8	0.0	0.8	0.0	0.0	0.0		
41-60% BLACK	1	1	0	5	1	0	0	0	0		8
	12.5	12.5	0.0	62.5	12.5	0.0	0.0	0.0	0.0		6.0
	33.3	14.3	0.0	13.2	3.0	0.0	0.0	0.0	0.0		
	0.8	0.8	0.0	3.8	0.8	0.0	0.0	0.0	0.0		
21-40% BLACK	0	0	1	0	0	0	0	0	1		2
	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	50.0		1.5
	0.0	0.0	4.8	0.0	0.0	0.0	0.0	0.0	12.5		
	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.8		
00-20% BLACK	0	5	9	11	3	5	3	0	2		38
	0.0	13.2	23.7	28.9	7.9	13.2	7.9	0.0	5.3		28.6
	0.0	71.4	42.9	29.7	11.5	25.0	25.0	0.0	25.0		
	0.0	3.8	6.8	8.3	2.3	3.8	2.3	0.0	1.5		
COLUMN TOTAL	3	7	21	38	26	20	4	6	8		133
	2.3	5.3	15.8	28.6	19.5	15.0	3.0	4.5	6.0		100.0

97 OUT OF 99 (97.0% OF THE VALID CELLS HAVE EXPECTED CELL FREQUENCY LESS THAN 5.0.
MINIMUM EXPECTED CELL FREQUENCY = 0.045
RAW CHI SQUARE = 98.12519 WITH 72 DEGREES OF FREEDOM. SIGNIFICANCE = 0.0027
CRAMER'S V = 0.35229
CONTINGENCY COEFFICIENT = 0.55346
LAMBDA (ASYMMETRIC) = 0.11769 WITH SCRAFFTR DEPENDENT. = 0.02105 WITH RETAUDS DEPENDENT.
LAMBDA (SYMMETRIC) = 0.05679
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.19467 WITH SCRAFFTR DEPENDENT. = 0.09995 WITH RETAUDS DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.13156
KENDALL'S TAU B = -0.19593. SIGNIFICANCE = 0.0041
KENDALL'S TAU C = -0.16182. SIGNIFICANCE = 0.0041
GAMMA = -0.28907
SOMER'S D (ASYMMETRIC) = -0.19295 WITH SCRAFFTR DEPENDENT. = -0.24240 WITH RETAUDS DEPENDENT.
SOMER'S D (SYMMETRIC) = -0.19885
ETA = 0.40330 WITH SCRAFFTR DEPENDENT. = 0.27253 WITH RETAUDS DEPENDENT.
PEARSON'S R = -0.17397 SIGNIFICANCE = 0.0224

NUMBER OF MISSING OBSERVATIONS = 521

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LONGITUDINAL STUDY OF ELEMENTARY SCHOOL MIGLU RD-91 READING
COMPREHENSION SCORE STUDENT SAMPLE--PREPARED FOR PROGRAM FOR EVERYONE
FILE  FLEMSAPP (CREATION DATE = 01/24/83)  ELEM.LONGITUDINAL STUDY OF DISCRIM.AVAILING PATTERNS

 CROSSTABULATION OF                    BY RETWISS  RET.LONG.READINESS VISUAL DISCRIM.STAYS
   SCRATTR  N OLACES IN FIRST 22-28 SCHOOL ATTENDED                                  PAGE  1 OF  1
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	RETWISS										RUN TOTAL
CLMNT ROW PCT / CUL PCT / TOT PCT	1	2	3	4	5	6	7	8	9		
SCRATTR											
1 01-100% BLACK	0	6	18	32	34	9	7	9	5	5	91
	0.0	7.4	22.2	39.5	37.3	11.1	8.6	11.1	7.4	6.2	61.4
	0.0	50.0	72.0	57.2	56.7	64.3	35.0	81.8	60.0	45.5	
	0.0	4.5	13.6	9.1	10.6	6.8	5.3	6.8	4.5	3.8	
2 61-80% BLACK	1	1	0	0	0	0	1	0	0	0	3
	33.3	33.3	0.0	0.0	0.0	33.3	14.3	0.0	0.0	0.0	2.3
	50.0	8.3	0.0	0.0	0.0	7.1	0.8	0.0	0.0	0.0	
	0.8	0.8	0.0	0.0	0.0	0.8	0.8	0.0	0.0	0.0	
3 41-60% BLACK	1	2	0	2	1	1	1	0	0	0	8
	12.5	25.0	0.0	25.0	12.5	12.5	12.5	0.0	0.0	0.0	6.1
	50.0	16.7	0.0	9.7	4.2	7.1	10.0	0.0	0.0	0.0	
	0.8	1.5	0.0	1.5	0.8	0.8	0.8	0.0	0.0	0.0	
4 21-40% BLACK	0	0	0	1	0	0	0	0	1	1	2
	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	50.0	10.0	1.5
	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	10.0	0.8	
	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.8	0.8	
5 00-20% BLACK	0	3	7	8	11	3	2	2	3	1	38
	0.0	7.9	18.4	21.1	28.9	7.9	5.3	5.3	7.9	2.6	29.0
	0.0	25.0	28.0	34.8	40.8	21.4	20.0	18.2	30.0	7.7	
	0.0	2.3	5.3	6.1	7.6	2.3	1.5	1.5	2.3	0.8	
COLUMN TOTAL	2	12	25	23	25	14	10	11	10	6	132
	1.5	9.1	18.9	17.4	18.9	10.6	7.6	8.3	7.6	4.5	100.0

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 36 OUT OF    45 ( 75.0%) OF THE VALID CELLS HAVE EXPECTED CELL FREQUENCY LESS THAN 5.0.
MINIMUM EXPECTED CELL FREQUENCY = 0.030
RAW CHI SQUARE =    91.04182 WITH    32 DEGREES OF FREEDOM.  SIGNIFICANCE = 0.0000
CRAMER'S V = 0.31294
CONTINGENCY COEFFICIENT = 0.53029
LAMBDA (ASYMMETRIC) = 0.01961 WITH SCRATTR DEPENDENT.          = 0.06542 WITH RETWISS DEPENDENT.
LAMBDA (SYMMETRIC) = 0.09063
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.13619 WITH SCRATTR DEPENDENT.          = 0.06482 WITH RETWISS DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.08709
KENDALL'S TAU B = -0.04484.    SIGNIFICANCE = 0.2196
KENDALL'S TAU C = -0.04607.    SIGNIFICANCE = 0.2196
GAMMA = -0.09261
SOMER'S D (ASYMMETRIC) = -0.04471 WITH SCRATTR DEPENDENT.          = -0.03122 WITH RETWISS DEPENDENT.
SOMER'S D (SYMMETRIC) = -0.05509
ETA = 0.37971 WITH SCRATTR DEPENDENT.          = 0.21506 WITH RETWISS DEPENDENT.
PEARSON'S R = -0.05194  SIGNIFICANCE = 0.2775

NUMBER OF MISSING OBSERVATIONS =  522
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LONGITUDINAL STUDY OF ELEMENTARY SCHOOL NEEDS AS-SI READING
COMPREHENSIVE SCORE STUDENT SAMPLE--PREP.BY ZAPIPAU FOR FLEMING
FILE FLEMSAMP (CREATION DATE = 01/25/83) FLEM.LONGITUDINAL STUDY OF DISCARD.PEACING PATTERNS

CROSSTABULATION OF
SCRA7778 % BLACKS IN FIRST 77-78 SCHOOL ATTENDED BY MFTLANGS METRO.LONG.READINESS LANGUAGE STANINE SC
PAGE 1 OF 1

SCRA7778	COUNT / ROW PCT / COL PCT / TOT PCT	MFTLANGS 1	2	3	4	5	6	7	8	9	ROW TOTAL
1 81-100% BLACK		0	3	8	29	7	18	9	4	6	83
		0.0	3.6	9.6	33.7	8.4	21.7	10.8	4.8	7.2	61.9
		0.0	37.5	47.1	68.3	58.3	62.1	64.3	100.0	75.0	
		0.0	2.2	6.0	23.9	5.2	13.4	6.7	3.0	4.5	
2 61-80% BLACK		1	0	0	0	0	1	1	0	0	3
		33.3	0.0	0.0	0.0	0.0	33.3	33.3	0.0	0.0	2.2
		100.0	0.0	0.0	0.0	0.0	3.4	7.1	0.0	0.0	
		0.7	0.0	0.0	0.0	0.0	0.7	0.7	0.0	0.0	
3 41-60% BLACK		0	1	2	3	0	2	0	0	0	8
		0.0	12.5	25.0	37.5	0.0	25.0	0.0	0.0	0.0	6.0
		0.0	12.5	11.8	7.3	0.0	6.9	0.0	0.0	0.0	
		0.0	0.7	1.5	2.2	0.0	1.5	0.0	0.0	0.0	
4 21-40% BLACK		0	0	1	0	0	0	0	0	1	2
		0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	50.0	1.5
		0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	12.5	
		0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.7	
5 0-20% BLACK		0	4	6	10	5	8	4	0	1	38
		0.0	10.5	15.8	26.3	13.2	21.1	10.5	0.0	2.6	28.4
		0.0	50.0	35.3	24.4	41.7	27.6	28.6	0.0	12.5	
		0.0	3.0	4.5	7.5	3.7	6.0	3.0	0.0	0.7	
COLUMN TOTAL		1	8	17	41	12	29	14	4	8	134
		0.7	6.0	12.7	30.6	9.0	21.6	10.4	3.0	6.0	100.0

30 OUT OF 45 (66.4%) OF THE VALID CELLS HAVE EXPECTED CELL FREQUENCY LESS THAN 5.0.

MINIMUM EXPECTED CELL FREQUENCY = 0.019
RAW CHI SQUARE = 68.91510 WITH 32 DEGREES OF FREEDOM. SIGNIFICANCE = 0.0002
CRAMER'S V = 0.39857
CONTINGENCY COEFFICIENT = 0.50277 . 0.02191 WITH MFTLANGS DEPENDENT.
LAMBDA (ASYMMETRIC) = 0.03922 WITH SCRA7778 DEPENDENT.
LAMBDA (SYMMETRIC) = 0.02778 . 0.06695 WITH MFTLANGS DEPENDENT.
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.13012 WITH SCRA7778 DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.08842
KENDALL'S TAU B = -0.12500. SIGNIFICANCE = 0.0403
KENDALL'S TAU C = -0.10623. SIGNIFICANCE = 0.0403
GAMMA = -0.19331
SOMERS'S D (ASYMMETRIC) = -0.10409 WITH SCRA7778 DEPENDENT. . -0.19904 WITH MFTLANGS DEPENDENT.
SOMERS'S D (SYMMETRIC) = -0.12648 . 0.21376 WITH MFTLANGS DEPENDENT.
ETA = 0.23279 WITH SCRA7778 DEPENDENT.
PEARSON'S R = -0.19745 SIGNIFICANCE = 0.0446

NUMBER OF MISSING OBSERVATIONS = 520

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LONGITUDINAL STUDY OF ELEMENTARY SCHOOL NEEDS AD-41 READING
COMPREHENSIVE SCHOOL STUDENT SAMPLE--PREP.BY ZAPEPAU AID FLEMING
FILE FLOWSAMP (CREATION DATE = 01/25/83) ELEM.LONGITUDINAL STUDY OF DISCRIP.BEGINS PATTERNS

CROSSTABULATION OF SCRATTTR BY MITPOOS, WT1.BOOK,DIAPINESS PRE-BEGINNG STANINT 3
SCRATTTR = BLACKS IN FIRST 22-30 SCHOOL ATTENDED BY MITPOOS WT1.BOOK,DIAPINESS PRE-BEGINNG STANINT 3 PAGE 1 OF 1

SCRATTTR	MITPOOS 1	2	3	4	5	6	7	8	9	ROW TOTAL
1 01-100% BLACK	COUNT	1	4	12	21	19	19	6	4	4	92
	ROW PCT	1.2	4.8	14.5	25.3	23.1	23.1	7.2	4.8	4.8	61.9
	COL PCT	33.3	44.4	54.5	61.8	57.6	73.0	66.7	80.3		
	TOT PCT	0.7	3.0	9.0	15.7	14.2	11.2	4.5	3.0	3.0	
2 61-80% BLACK	COUNT	1	0	1	0	0	1	0	0	0	3
	ROW PCT	33.3	0.0	33.3	0.0	0.0	33.3	0.0	0.0	0.0	2.2
	COL PCT	33.3	0.0	4.5	0.0	0.0	3.8	0.0	0.0	0.0	
	TOT PCT	0.7	0.0	0.7	0.0	0.0	0.7	0.0	0.0	0.0	
3 41-60% BLACK	COUNT	1	1	2	2	2	0	0	0	0	8
	ROW PCT	12.5	12.5	25.0	25.0	25.0	0.0	0.0	0.0	0.0	6.0
	COL PCT	33.3	11.1	9.1	9.5	7.7	0.0	0.0	0.0	0.0	
	TOT PCT	0.7	0.7	1.5	1.5	1.5	0.0	0.0	0.0	0.0	
4 21-40% BLACK	COUNT	0	0	1	0	0	0	0	0	1	2
	ROW PCT	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	50.0	1.5
	COL PCT	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0	16.7	
	TOT PCT	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.7	
5 00-20% BLACK	COUNT	0	4	6	11	9	4	2	2	0	38
	ROW PCT	0.0	10.5	15.8	28.9	23.7	10.5	5.3	5.3	0.0	28.9
	COL PCT	0.0	44.4	27.3	32.4	34.6	20.0	25.0	33.3	0.0	
	TOT PCT	0.0	3.0	4.5	8.2	6.7	3.0	1.5	1.5	0.0	
COLUMN TOTAL		3 2.2	9 6.7	22 16.9	34 25.9	31 19.9	20 14.9	8 6.0	6 4.5	5 3.9	134 100.0

36 OUT OF 45 (80.0%) OF THE VALID CELLS HAVE EXPECTED CELL FREQUENCY LESS THAN 5.0.

MINIMUM EXPECTED CELL FREQUENCY = 0.045
PEARSON CHI-SQUARE = 42.2583 WITH 32 DEGREES OF FREEDOM. SIGNIFICANCE = 0.1061

CRAMER'S V = 0.28079
CONTINGENCY COEFFICIENT = 0.48965
LAMBDA (ASYMMETRIC) = 0.0 WITH SCRATTTR DEPENDENT. = 0.07000 WITH MITPOOS DEPENDENT.
LAMBDA (SYMMETRIC) = 0.01329
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.12367 WITH SCRATTTR DEPENDENT. = 0.06123 WITH MITPOOS DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.08151
KENDALL'S TAU B = -0.17680. SIGNIFICANCE = 0.0196
KENDALL'S TAU C = -0.10739. SIGNIFICANCE = 0.0196
GAMMA = -0.19709
SOMERS'S D (ASYMMETRIC) = -0.10270 WITH SCRATTTR DEPENDENT. = -0.16151 WITH MITPOOS DEPENDENT.
SOMERS'S D (SYMMETRIC) = -0.12557
ETA = 0.19151 WITH SCRATTTR DEPENDENT. = 0.20917 WITH MITPOOS DEPENDENT.
PEARSON'S R = -0.13276 SIGNIFICANCE = 0.0637

NUMBER OF MISSING OBSERVATIONS = 520

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LONGITUDINAL STUDY OF ELEMENTARY SCHOOL MIGLO 80-81 READING
COMPREHENSION SCORE STUDENT SAMPLE--PREP.BY ZAPIPAU FOR FLEMING
FILE  ELEMSAMP (CREATION DATE = 01/29/93)   ELEM.LONGITUDINAL STUDY OF DISCRIP.READING PATTERNS

* * * * * * * * * * * * * * * * * * *  C R O S S T A B U L A T I O N  O F  * * * * * * * * * * * * * * * * * * *
   SCRA7778  % BLACKS IN FIRST 20 SCHOOL ATTENDED  BY  LITSROB1  80-81 SPRING LITERAL SUPREST STANINE SCORE
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SCRA7778	LITSROB1	1	2	3	4	5	6	7	8	9	ROW TOTAL
1	COUNT	7	13	28	18	17	11	8	2	7	111
01-10% BLACK	ROW PCT	6.3	11.7	25.2	16.2	15.3	9.9	7.2	1.8	6.3	67.3
	COL PCT	63.6	65.0	73.7	69.3	81.0	68.8	47.1	100.0	58.3	
	TOT PCT	4.2	7.9	17.0	10.9	10.3	6.7	4.8	1.2	4.2	
2	COUNT	0	0	0	0	0	0	0	0	1	1
11-20% BLACK	ROW PCT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.6
	COL PCT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3	
	TOT PCT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	
3	COUNT	1	1	2	1	1	0	0	0	0	6
41-60% BLACK	ROW PCT	16.7	16.7	33.3	16.7	16.7	0.0	0.0	0.0	0.0	3.6
	COL PCT	9.1	5.0	5.3	5.6	4.8	0.0	0.0	0.0	0.0	
	TOT PCT	0.6	0.6	1.2	0.6	0.6	0.0	0.0	0.0	0.0	
6	COUNT	0	1	0	0	0	0	0	0	0	1
21-40% BLACK	ROW PCT	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
	COL PCT	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	TOT PCT	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
9	COUNT	3	5	8	9	3	5	9	0	4	46
81-90% BLACK	ROW PCT	6.5	10.9	17.4	19.6	6.5	10.9	19.6	0.0	8.7	27.9
	COL PCT	27.3	25.0	21.1	32.1	14.3	31.3	52.9	0.0	33.3	
	TOT PCT	1.8	3.0	4.8	5.5	1.8	3.0	5.5	0.0	2.4	
COLUMN TOTAL		11	20	38	28	21	16	17	2	12	165
		6.7	12.1	23.0	17.0	12.7	9.7	10.3	1.2	7.3	100.0

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 33 OUT OF    49 ( 73.5%) OF THE VALID CELLS HAVE EXPECTED CELL FREQUENCY LESS THAN 5.0.
MINIMUM EXPECTED CELL FREQUENCY = 0.012
RAW CHI SQUARE =    92.30191 WITH    72 DEGREES OF FREEDOM.  SIGNIFICANCE = 0.0518
CRAMER'S V = 0.22123
CONTINGENCY COEFFICIENT = 0.40462
LAMBDA (ASYMMETRIC) = 0.01892 WITH SCRA7778 DEPENDENT.          = 0.02362 WITH LITSROB1 DEPENDENT.
LAMBDA (SYMMETRIC) = 0.02210
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.08769 WITH SCRA7778 DEPENDENT.          = 0.03457 WITH LITSROB1 DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.04959
KENDALL'S TAU B = 0.05402.     SIGNIFICANCE = 0.2288
KENDALL'S TAU C = 0.06279.     SIGNIFICANCE = 0.2288
GAMMA = 0.08442
SOMER'S D (ASYMMETRIC) = 0.03991 WITH SCRA7778 DEPENDENT.          = 0.07310 WITH LITSROB1 DEPENDENT.
SOMER'S D (SYMMETRIC) = 0.05165
ETA = 0.22611 WITH SCRA7778 DEPENDENT.          = 0.26203 WITH LITSROB1 DEPENDENT.
PEARSON'S R = 0.07095  SIGNIFICANCE = 0.1826

NUMBER OF MISSING OBSERVATIONS =  489
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LONGITUDINAL STUDY OF ELEMENTARY SCHOOL MIGLO RD-91 READING
COMPREHENSION SCORE STUDENT SAMPLE--PREP.BY ZABIRAU FOR FLEMING
FILE ELEMSAMP (CREATION DATE = 01/25/93) ELEM.LONGITUDINAL STUDY OF DISCREP.READING PATTERNS

CROSSTABULATION OF
SCRATTTR % BLACKS IN FIRST 77-78 SCHOOL ATTENDED BY TOTSPCP1 RD-01 SPRI TOTAL STANINE SCORE PAGE 1 OF 1

TOTSPCP1

SCRATTTR	COUNT / ROW PCT / COL PCT / TOT PCT	1	2	3	4	5	6	7	8	9	ROW TOTAL
01-10% BLACK	1	8	19	30	16	14	13	10	2	3	107
		7.2	13.5	27.0	14.4	12.6	11.7	9.0	1.8	2.7	67.9
		66.7	83.3	76.9	51.6	87.5	59.1	52.6	66.7	60.0	
		4.8	9.1	18.2	9.7	8.5	7.9	6.1	1.2	1.8	
11-20% BLACK	2	0	0	0	0	0	0	0	0	1	1
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.6
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	
41-60% BLACK	3	0	2	2	2	0	0	0	0	0	6
		0.0	33.3	33.3	33.3	0.0	0.0	0.0	0.0	0.0	3.6
		0.0	11.1	5.1	5.5	0.0	0.0	0.0	0.0	0.0	
		0.0	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	
21-40% BLACK	4	1	0	0	0	0	0	0	0	0	1
		100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
		8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
		0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
81-90% BLACK	9	3	1	7	13	2	9	9	1	1	46
		6.5	2.2	15.2	28.3	4.3	19.6	19.6	2.2	2.2	27.9
		25.0	5.6	17.9	41.9	12.5	40.9	47.4	33.3	20.0	
		1.8	0.6	4.2	7.9	1.2	5.5	5.5	0.6	0.6	
COLUMN TOTAL		12	22	39	31	16	22	19	3	5	165
		7.3	10.9	23.6	18.8	9.7	13.3	11.5	1.8	3.0	100.0

33 OUT OF 49 (75.9%) OF THE VALID CELLS HAVE EXPECTED CELL FREQUENCY LESS THAN 5.0.
MINIMUM EXPECTED CELL FREQUENCY = 0.018
RAW CHI SQUARE = 67.69645 WITH 32 DEGREES OF FREEDOM. SIGNIFICANCE = 0.0002
CRAMER'S V = 0.32024
CONTINGENCY COEFFICIENT = 0.53934
LAMBDA (ASYMMETRIC) = 0.0 WITH SCRATTTR DEPENDENT. = 0.06349 WITH TOTSPCP1 DEPENDENT.
LAMBDA (SYMMETRIC) = 0.04044
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.14328 WITH SCRATTTR DEPENDENT. = 0.09740 WITH TOTSPCP1 DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.08194
KENDALL'S TAU B = 0.13905. SIGNIFICANCE = 0.0202
KENDALL'S TAU C = 0.10808. SIGNIFICANCE = 0.0202
GAMMA = 0.21404
SOMER'S D (ASYMMETRIC) = 0.10171 WITH SCRATTTR DEPENDENT. = 0.19043 WITH TOTSPCP1 DEPENDENT.
SOMER'S D (SYMMETRIC) = 0.13118
ETA = 0.30459 WITH SCRATTTR DEPENDENT. = 0.30477 WITH TOTSPCP1 DEPENDENT.
PEARSON'S R = 0.19240 SIGNIFICANCE = 0.0330

NUMBER OF MISSING OBSERVATIONS = 449

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LONGITUDINAL STUDY OF ELEMENTARY SCHOOL MISLD RD-RI READING
COMPREHENSION SCORE STUDENT SAMPLE---PREP.BY ZAPINAU FOR FLEISH
FILE FLEMSAPP (CREATION DATE = 01/25/83) FLEM.LONGITUDINAL STUDY OF DISCRIP.READING PATTERNS

CROSSTABULATION OF SCRA7778 % BLACKS IN FIRST 11-28 SCHOOL ATTENDED BY INFSPOR1 RD-RI SPAT DIFFERENTIAL STANINE SCORE PAGE 1 OF 1

SCRA7778	INFSPOR1 1	2	3	4	5	6	7	8	9	ROW TOTAL
1 #1-100% BLACK	13	12	29	17	15	13	7	4	1	111
	11.7	10.8	26.1	15.3	13.5	11.7	6.3	3.6	0.9	67.3
	86.7	66.7	78.4	56.7	71.4	54.2	63.6	66.7	33.3	
	7.9	7.3	17.6	10.3	9.1	7.9	4.2	2.4	0.6	
2 51-99% BLACK	0	0	0	0	0	0	0	0	1	1
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.6
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	
3 41-50% BLACK	0	2	1	3	0	0	0	0	0	6
	0.0	33.3	16.7	50.0	0.0	0.0	0.0	0.0	0.0	3.6
	0.0	11.1	2.7	10.0	0.0	0.0	0.0	0.0	0.0	
	0.0	1.2	0.6	1.8	0.0	0.0	0.0	0.0	0.0	
4 21-40% BLACK	1	0	0	0	0	0	0	0	0	1
	100.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.6
	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.6	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	
5 0%-20% BLACK	1	4	7	10	6	11	4	2	1	46
	2.2	8.7	15.2	21.7	13.0	23.9	8.7	4.3	2.2	27.9
	6.7	22.2	18.9	33.3	28.6	45.8	36.4	33.3	33.3	
	0.6	2.4	4.2	6.1	3.6	6.7	2.4	1.2	0.6	
COLUMN TOTAL	15	18	37	30	21	24	11	6	3	165
	9.1	10.9	22.4	18.2	12.7	14.5	6.7	3.6	1.8	100.0

33 OUT OF 45 (73.3%) OF THE VALID CELLS HAVE EXPECTED CELL FREQUENCY LESS THAN 5.0.
MINIMUM EXPECTED CELL FREQUENCY = 0.018
PEARSON CHI SQUARE = 93.44911 WITH 32 DEGREES OF FREEDOM. SIGNIFICANCE = 0.0000
CRAMER'S V = 0.35569
CONTINGENCY COEFFICIENT = 0.57966
LAMBDA (ASYMMETRIC) = 0.0 WITH SCRA7778 DEPENDENT. = 0.06250 WITH INFSPOR1 DEPENDENT.
LAMBDA (SYMMETRIC) = 0.04396
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.12782 WITH SCRA7778 DEPENDENT. = 0.09091 WITH INFSPOR1 DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.07287
KENDALL'S TAU B = 0.35252. SIGNIFICANCE = 0.0108
KENDALL'S TAU C = 0.32171. SIGNIFICANCE = 0.0108
GAMMA = 0.23974
SOMERS'S D (ASYMMETRIC) = 0.21369 WITH SCRA7778 DEPENDENT. = 0.26106 WITH INFSPOR1 DEPENDENT.
SOMERS'S D (SYMMETRIC) = 0.24627
ETA = 0.43157 WITH SCRA7778 DEPENDENT. = 0.31507 WITH INFSPOR1 DEPENDENT.
PEARSON'S R = 0.17050 SIGNIFICANCE = 0.0143

NUMBER OF MISSING OBSERVATIONS = 999

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APPENDIX E

APPENDIX E

APPENDIX E (continued)

LONGITUDINAL STUDY OF ELEMENTARY SCHOOL SKILLS 80-81 BASELINE
COMPREHENSIVE SECOND STUDENT SAMPLE--PREP.BY ZAPIRAU FEA FLEMING
FILE FLEW160P (CREATION DATE = 01/29/83) FLEW.LONGITUDINAL STUDY OF DISCARD.SCALING PATTERNS

GROUP 1: Top 80-81 Reading Comprehension Students (Deciles 7,8 and 9)

GROUP 2: Bottom 80-81 Reading Comprehension Students (Deciles 1 and 2)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	t VALUE	2-TAIL PROB.	POOLED VARIANCE ESTIMATE t VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	SEPARATE VARIANCE ESTIMATE t VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
FLEW1665 READ.COMP.READINESS LANGUAGE STANINE SC												
GROUP 1	137	6.1825	1.601	0.137	1.41	0.020	-9.14	400	0.000	-9.25	310.96	0.000
GROUP 2	265	5.9170	1.899	0.117								
FLEW1668 READ.COMP.READINESS PRE-READING RAW SCORE												
GROUP 1	139	38.3381	12.179	1.033	1.21	0.219	-12.84	394	0.000	-13.21	304.74	0.000
GROUP 2	247	25.8872	13.390	0.852								
FLEW1665 READ.COMP.READINESS PRE-READING STANINE S												
GROUP 1	137	7.8540	1.384	0.111	1.39	0.001	-13.02	391	0.000	-14.08	343.85	0.000
GROUP 2	256	6.0195	1.698	0.106								
CHES0681 1980-81 CTBS READING COMPREHENSION NCE S												
GROUP 1	298	59.9767	9.879	0.572	1.33	0.012	-91.24	640	0.000	-88.72	497.83	0.000
GROUP 2	384	34.4479	9.489	0.542								
CHES7984 1979-80 CTBS READING COMPREHENSION NCE S												
GROUP 1	193	51.9462	12.271	1.116	1.03	0.845	-20.84	343	0.000	-20.85	336.67	0.000
GROUP 2	112	67.0893	13.497	1.275								
CHES7959 1978-79 CTBS READING COMPREHENSION NCE S												
GROUP 1	99	56.9293	10.893	2.200	1.32	0.684	-10.29	114	0.000	-10.30	113.96	0.000
GROUP 2	57	67.8772	16.083	2.169								
CHES7978 77-78 CTBS READING COMP. NCE SCORE												
GROUP 1	11	29.6182	17.629	5.315	1.54	0.495	-4.35	21	0.000	-4.79	20.66	0.000
GROUP 2	12	65.5980	21.984	6.347								
CHES7977 76-77 CTBS READING COMP. NCE SCORE												
GROUP 1	0	0.0	0.0	0.0	0.0	1.000	0.0	0	1.000	0.0	0.0	1.000
GROUP 2	1	[illegible]	0.0	0.0								
CHES7976 75-76 CTBS READING COMP. NCE SCORE												
GROUP 1	0	0.0	0.0	0.0	0.0	1.000	0.0	0	1.000	0.0	0.0	1.000
GROUP 2	0	0.0	0.0	0.0								
CHES7975 74-75 CTBS READING COMP. NCE SCORE												
GROUP 1	0	0.0	0.0	0.0	0.0	1.000	0.0	0	1.000	0.0	0.0	1.000
GROUP 2	0	0.0	0.0	0.0								
CHES7974 73-74 CTBS READING COMP. NCE SCORE												
GROUP 1	1	1.0000	0.0	0.0	0.0	1.000	0.0	0	1.000	0.0	0.0	1.000
GROUP 2	0	0.0	0.0	0.0								
CHES7973 72-73 CTBS READING COMP. NCE SCORE												
GROUP 1	0	0.0	0.0	0.0	0.0	1.000	0.0	0	1.000	0.0	0.0	1.000
GROUP 2	0	0.0	0.0	0.0								
CHES7972 71-72 CTBS READING COMP. NCE SCORE												
GROUP 1	0	0.0	0.0	0.0	0.0	1.000	0.0	0	1.000	0.0	0.0	1.000
GROUP 2	0	0.0	0.0	0.0								
CHES7971 70-71 CTBS READING COMP. NCE SCORE												
GROUP 1	0	0.0	0.0	0.0	0.0	1.000	0.0	0	1.000	0.0	0.0	1.000
GROUP 2	0	0.0	0.0	0.0								
CHES6970 69-70 CTBS READING COMP. NCE SCORE												
GROUP 1	0	0.0	0.0	0.0	0.0	1.000	0.0	0	1.000	0.0	0.0	1.000
GROUP 2	0	0.0	0.0	0.0								
CHES6969 68-69 CTBS READING COMP. NCE SCORE												
GROUP 1	0	0.0	0.0	0.0	0.0	1.000	0.0	0	1.000	0.0	0.0	1.000
GROUP 2	0	0.0	0.0	0.0								

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APPENDIX E (continued)

LONGITUDINAL STUDY OF ELEMENTARY SCHOOL NEEDS 80-81 READING
COMPREHENSIVE SCORE STUDENT SAMPLE--PREP.BY ZAFIRAU PLO FLEMISH
FILE ELEMLONG (CREATION DATE = 01/25/83) ELEM.LONGITUDINAL STUDY TO DISCRIP.PEACING PATTERNS

GROUP 1: Top 80-81 Reading Comprehension students (Stanines 7,8 and 9)

GROUP 2: Bottom 80-81 Reading Comprehension Students (Stanines 1 and 2)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	POOLED VARIANCE ESTIMATE t VALUE	POOLED VARIANCE ESTIMATE DEGREES OF FREEDOM	POOLED VARIANCE ESTIMATE 2-TAIL PROB.	SEPARATE VARIANCE ESTIMATE t VALUE	SEPARATE VARIANCE ESTIMATE DEGREES OF FREEDOM	SEPARATE VARIANCE ESTIMATE 2-TAIL PROB.
SHIP8081 80-81 SCHOLARSHIP GRADE										
GROUP 1	236	1.5805	0.880	0.099	1.04	0.081	-14.19	578	0.000	-19.84	519.86	0.000
GROUP 2	344	2.9332	0.960	0.052								
SHIP7980 79-80 SCHOLARSHIP GRADE										
GROUP 1	211	1.6062	0.771	0.053	1.63	0.000	-14.84	566	0.000	-15.94	531.32	0.000
GROUP 2	337	2.9080	1.044	0.057								
SHIP7879 78-79 SCHOLARSHIP GRADE										
GROUP 1	192	1.8276	0.929	0.069	1.32	0.004	-13.02	384	0.000	-12.17	393.79	0.000
GROUP 2	314	2.9554	1.047	0.073								
SHIP7778 77-78 SCHOLARSHIP GRADE										
GROUP 1	147	1.7551	0.898	0.074	1.16	0.087	-9.17	293	0.000	-9.18	280.37	0.000
GROUP 2	148	2.8378	1.119	0.092								
SHIP7677 76-77 SCHOLARSHIP GRADE										
GROUP 1	119	1.7478	0.847	0.078	1.38	0.101	-8.77	211	0.000	-8.66	191.77	0.000
GROUP 2	98	2.9184	1.052	0.106								
SHIP7576 75-76 SCHOLARSHIP GRADE										
GROUP 1	99	1.8778	0.891	0.130	1.41	0.184	-6.92	186	0.000	-6.81	91.59	0.000
GROUP 2	88	3.0000	1.011	0.146								
SHIP7475 74-75 SCHOLARSHIP GRADE										
GROUP 1	9	1.7778	0.667	0.222	0.0	1.000	-5.55	10	0.000	-10.00	0.00	0.000
GROUP 2	9	4.0000	0.0	0.0								
HABI8081 80-81 HABITS GRADE										
GROUP 1	272	1.3235	1.184	0.072	1.01	0.969	-14.67	489	0.000	-14.86	491.97	0.000
GROUP 2	344	2.6947	1.160	0.061								
HABI7980 79-80 HABITS GRADE										
GROUP 1	214	1.5888	0.964	0.065	1.48	0.000	-11.27	567	0.000	-11.98	532.92	0.000
GROUP 2	355	2.6778	1.195	0.063								
HABI7879 78-79 HABITS GRADE										
GROUP 1	191	1.9269	1.078	0.080	1.09	0.994	-10.79	394	0.000	-10.92	387.04	0.000
GROUP 2	215	2.7256	1.125	0.077								
HABI7778 77-78 HABITS GRADE										
GROUP 1	190	1.8153	1.067	0.077	1.07	0.670	-8.44	293	0.000	-8.67	291.68	0.000
GROUP 2	105	2.7105	1.109	0.092								
HABI7677 76-77 HABITS GRADE										
GROUP 1	118	1.8475	0.975	0.090	1.23	0.279	-5.31	214	0.000	-5.26	197.45	0.000
GROUP 2	98	2.9918	1.083	0.109								
HABI7576 75-76 HABITS GRADE										
GROUP 1	97	1.7423	0.792	0.101	1.48	0.197	-6.93	189	0.000	-6.38	83.33	0.000
GROUP 2	95	2.7333	0.963	0.198								
HABI7475 74-75 HABITS GRADE										
GROUP 1	12	2.0000	0.0	0.0	0.0	1.000	-3.21	12	0.000	-3.00	1.00	0.500
GROUP 2	2	3.0000	1.414	1.000								
READ8081 80-81 READING GRADE										
GROUP 1	190	1.6194	0.794	0.057	1.51	0.002	-17.02	588	0.000	-17.99	571.29	0.000
GROUP 2	344	3.0294	0.979	0.053								
READ7980 79-80 READING GRADE										
GROUP 1	137	1.7810	0.776	0.066	1.40	0.005	-12.50	330	0.000	-13.01	324.94	0.000
GROUP 2	199	3.0100	0.973	0.069								

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APPENDIX E (continued)

LONGITUDINAL STUDY OF ELEMENTARY SCHOOL NEEDS 80-81 READING
COMPREHENSIVE SCORE STUDENT SAMPLE--PREP.BY ZAFIRAU FOR PLANING
FILE ELEMLONG (CREATION DATE = 01/29/81) ELEM.LONGITUDINAL STUDY OF DISCREP.READING PATTERNS

GROUP 1: Top 80-81 Reading Comprehension Students (Promises 7,8 and 9)
GROUP 2: Bottom 80-81 Reading Comprehension Students (Promises 1 and 2)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	PEOPLES VARIANCE ESTIMATE t VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	SEPARATE VARIANCE ESTIMATE t VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
80-81 READING GRADE												
GROUP 1	39	1.6087	0.722	0.151	1.81	0.144	-9.91	58	0.000	-8.34	56.03	0.000
GROUP 2	31	3.0000	0.972	0.146								
77-78 READING GRADE												
GROUP 1	11	2.0909	0.701	0.191	20.00	0.000	-1.83	29	0.078	-2.91	23.26	0.029
GROUP 2	20	2.8500	1.348	0.342								
77-77 READING GRADE												
GROUP 1	10	2.0000	0.699	0.221	1.75	0.428	-0.38	18	0.000	-0.38	16.00	0.000
GROUP 2	10	3.2000	0.919	0.291								
76-76 READING GRADE												
GROUP 1	6	1.0000	0.857	0.350	1.40	1.000	-1.50	6	0.184	-1.69	2.00	0.240
GROUP 2	2	3.0000	0.707	0.500								
75-75 READING GRADE												
GROUP 1	2	2.0000	0.0	0.0	0.0	1.000	0.0	1	1.000	0.0	0.0	1.000
GROUP 2	0	0.0	0.0	0.0								
80-81 LANGUAGE GRADE												
GROUP 1	179	1.6429	0.868	0.065	1.10	0.489	-17.49	441	0.000	-17.82	380.78	0.000
GROUP 2	268	2.7239	0.892	0.054								
79-80 LANGUAGE GRADE												
GROUP 1	134	1.9030	0.756	0.065	1.44	0.003	-7.04	272	0.000	-7.21	270.67	0.000
GROUP 2	140	2.6643	0.956	0.081								
78-78 LANGUAGE GRADE												
GROUP 1	33	1.9909	0.999	0.205	1.17	0.682	-4.54	66	0.000	-4.79	61.73	0.000
GROUP 2	34	2.9714	1.288	0.263								
77-77 LANGUAGE GRADE												
GROUP 1	32	1.7500	0.734	0.230	1.72	0.349	-3.31	58	0.007	-3.44	28.09	0.001
GROUP 2	20	2.8000	0.988	0.221								
76-77 LANGUAGE GRADE												
GROUP 1	9	1.9444	0.726	0.242	1.93	0.369	-4.21	18	0.000	-4.42	17.77	0.000
GROUP 2	11	3.2727	1.009	0.304								
75-76 LANGUAGE GRADE												
GROUP 1	5	1.8571	0.378	0.143	1.60	0.063	-4.61	10	0.001	-4.10	9.83	0.000
GROUP 2	9	3.0000	0.866	0.433								
79-79 LANGUAGE GRADE												
GROUP 1	1	2.0000	0.0	0.0	0.0	1.000	0.0	0	1.000	0.0	0.0	1.000
GROUP 2	1	4.0000	0.0	0.0								
80-81 SPELLING GRADE												
GROUP 1	179	1.6872	1.248	0.093	1.64	0.000	-14.03	617	0.000	-13.59	326.07	0.000
GROUP 2	268	3.1667	0.975	0.063								
79-80 SPELLING GRADE												
GROUP 1	137	1.9854	1.270	0.115	1.11	0.016	-9.02	270	0.000	-8.95	262.15	0.000
GROUP 2	135	3.2926	1.041	0.090								
78-78 SPELLING GRADE												
GROUP 1	30	1.6400	1.221	0.208	1.44	0.333	-4.24	56	0.000	-4.18	48.60	0.000
GROUP 2	28	3.1934	1.014	0.167								
77-77 SPELLING GRADE												
GROUP 1	10	2.0909	0.877	0.249	1.22	0.739	-2.83	20	0.010	-2.86	17.14	0.049
GROUP 2	12	3.4251	0.930	0.277								

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APPENDIX E (continued)

LONGITUDINAL STUDY OF ELEMENTARY SCHOOL AGED 80-81 READING
COMPREHENSION SCORE STUDENT SAMPLE--HELP,BY ZAFIRAU AND PLEMONS
FILE GLEMSAMP (CREATION DATE = 01/25/83) GLEM.LONGITUDINAL STUDY OF DISCRIP.READING PATTERNS.

GROUP 1: Top 80-81 Reading Comprehension Students (Deciles 7,8 and 9)

GROUP 2: Bottom 80-81 Reading Comprehension Students (Deciles 1 and 2)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	t VALUE	2-TAIL PROB.	POOLED VARIANCE ESTIMATE t VALUE	POOLED VARIANCE ESTIMATE DEGREES OF FREEDOM	POOLED VARIANCE ESTIMATE 2-TAIL PROB.	SEPARATE VARIANCE ESTIMATE t VALUE	SEPARATE VARIANCE ESTIMATE DEGREES OF FREEDOM	SEPARATE VARIANCE ESTIMATE 2-TAIL PROB.
SPEL7977 76-77 SPELLING GRADE												
GROUP 1	9	3.0000	0.500	0.167	P.00	0.000	-2.01	17	0.061	-2.10	11.03	0.000
GROUP 2	10	3.0000	1.414	0.447								
SPEL7978 76-78 SPELLING GRADE												
GROUP 1	9	1.8333	0.408	0.167	9.00	0.288	-0.33	8	0.005	-0.36	1.03	0.195
GROUP 2	3	3.0000	0.707	0.408								
SPEL7979 76-79 SPELLING GRADE												
GROUP 1	1	3.0000	0.0	0.0	0.0	1.000	0.0	0	1.000	0.0	0.0	1.000
GROUP 2	0	0.0	0.0	0.0								
LITR8081 80-81 SPRT LITERAL RAW SCORE												
GROUP 1	174	32.6437	7.958	0.603	1.39	0.045	-16.44	309	0.000	-16.82	307.28	0.000
GROUP 2	137	26.0788	6.751	0.577								
LITS8081 80-81 SPRT LITERAL SHORTEST STANINE SCORE												
GROUP 1	174	7.9885	1.108	0.084	1.91	0.000	-20.27	309	0.000	-23.38	250.84	0.000
GROUP 2	137	6.9416	1.939	0.131								
INFR8081 80-81 SPRT INFERENTIAL RAW SCORE												
GROUP 1	174	30.9770	8.293	0.671	2.29	0.000	-19.27	309	0.000	-19.97	229.01	0.000
GROUP 2	137	24.0000	7.994	0.693								
INFS8081 80-81 SPRT INFERENTIAL STANINE SCORE												
GROUP 1	174	7.8276	1.130	0.086	1.12	0.000	-20.91	309	0.000	-23.91	298.97	0.000
GROUP 2	137	6.3358	1.399	0.119								
TOTR8081 80-81 SPRT TOTAL RAW SCORE												
GROUP 1	174	77.2471	15.531	0.799	1.61	0.000	-20.87	309	0.000	-20.79	269.80	0.000
GROUP 2	137	69.2336	12.965	1.005								
TOTS8081 80-81 SPRT TOTAL STANINE SCORE												
GROUP 1	174	7.9195	1.189	0.090	1.96	0.071	-20.11	309	0.000	-23.70	269.79	0.000
GROUP 2	137	6.6161	1.370	0.117								
LITR7980 79-80 SPRT LITERAL RAW SCORE												
GROUP 1	90	30.7999	7.779	0.775	1.97	0.036	-10.01	180	0.000	-10.03	179.12	0.000
GROUP 2	94	28.9574	8.229	0.925								
LITS7980 79-80 SPRT LITERAL STANINE SCORE												
GROUP 1	90	7.0714	1.048	0.104	1.57	0.002	-17.01	180	0.000	-17.10	168.34	0.000
GROUP 2	94	6.3652	1.491	0.150								
INFR7980 79-80 SPRT INFERENTIAL RAW SCORE												
GROUP 1	90	29.0919	7.839	0.938	1.30	0.210	-11.37	180	0.000	-11.39	166.51	0.000
GROUP 2	94	26.2262	8.439	0.912								
INFS7980 79-80 SPRT INFERENTIAL STANINE SCORE												
GROUP 1	90	7.0306	1.144	0.136	1.20	0.242	-17.69	180	0.000	-17.32	167.23	0.000
GROUP 2	94	6.1989	1.294	0.141								
TOTR7980 79-80 SPRT TOTAL RAW SCORE												
GROUP 1	90	29.9889	11.799	1.199	1.15	0.401	-11.83	180	0.000	-12.07	179.28	0.000
GROUP 2	94	68.5995	9.443	1.011								
TOTS7980 79-80 SPRT TOTAL STANINE SCORE												
GROUP 1	90	7.0016	1.200	0.138	1.14	0.539	-10.27	180	0.000	-10.39	171.35	0.000
GROUP 2	94	6.2481	1.390	0.143								
LITR7879												
GROUP 1	21	18.9714	9.609	1.228	1.92	0.444	-0.99	43	0.000	-9.79	29.31	0.000
GROUP 2	44	26.4091	4.044	0.519								

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APPENDIX E (continued)

LONGITUDINAL STUDY OF ELEMENTARY SCHOOL FIELD 00-01 READING
COMPREHENSION SCORE STUDENT SAMPLE--PREP.BY ZAPIRAU FOR FLEMING
FILE GLEMSAPP (CREATION DATE = 01/29/01) GLEM.LONGITUDINAL STUDY OF DISCREP.READING PATTERNS

GROUP 1: Top 00-01 Reading Comprehension Students (Deciles 7,8 and 9)

GROUP 2: Bottom 00-01 Reading Comprehension Students (Deciles 1 and 2)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	POOLED VARIANCE ESTIMATE t VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	SEPARATE VARIANCE ESTIMATE t VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
LITS1079												
GROUP 1	21	3.9714	1.399	0.305	1.30	0.526	-8.49	68	0.000	-8.64	43.00	0.000
GROUP 2	49	8.1020	1.997	0.285								
INFS1079												
GROUP 1	21	19.2381	4.836	1.055	1.28	0.477	-8.45	68	0.000	-8.04	34.04	0.000
GROUP 2	49	25.0408	6.197	0.811								
INFS1079												
GROUP 1	21	33.7619	12.389	2.699	1.59	0.259	-8.17	68	0.000	-8.97	47.37	0.000
GROUP 2	49	69.1429	19.595	2.799								
TOTS1079												
GROUP 1	21	9.0182	2.648	0.567	1.16	0.734	-8.19	68	0.000	-8.14	43.38	0.000
GROUP 2	49	8.9184	2.049	0.467								
TOTS1079												
GROUP 1	21	3.0952	1.274	0.278	1.66	0.288	-8.34	68	0.000	-8.18	31.44	0.000
GROUP 2	49	6.1837	1.964	0.223								
LITS1770												
GROUP 1	1	11.0000	0.0	0.0	0.0	1.000	0.0	0	1.000	0.0	0.0	1.000
GROUP 2	0	0.0	0.0	0.0								
LITS1770												
GROUP 1	1	7.0000	0.0	0.0	0.0	1.000	0.0	0	1.000	0.0	0.0	1.000
GROUP 2	0	0.0	0.0	0.0								
INFS1770												
GROUP 1	1	12.0000	0.0	0.0	0.0	1.000	0.0	0	1.000	0.0	0.0	1.000
GROUP 2	0	0.0	0.0	0.0								
INFS1770												
GROUP 1	1	7.0000	0.0	0.0	0.0	1.000	0.0	0	1.000	0.0	0.0	1.000
GROUP 2	0	0.0	0.0	0.0								
TOTS1770												
GROUP 1	1	23.0000	0.0	0.0	0.0	1.000	0.0	0	1.000	0.0	0.0	1.000
GROUP 2	0	0.0	0.0	0.0								
TOTS1770												
GROUP 1	1	7.0000	0.0	0.0	0.0	1.000	0.0	0	1.000	0.0	0.0	1.000
GROUP 2	0	0.0	0.0	0.0								
LITS7677												
GROUP 1	2	18.0000	12.728	9.000	121.50	0.016	-1.93	3	0.234	-1.15	1.01	0.457
GROUP 2	3	26.3333	1.155	0.667								
LITS7677												
GROUP 1	2	9.0000	2.828	2.000	24.00	0.078	-1.72	3	0.184	-1.32	1.06	0.414
GROUP 2	3	6.6667	0.577	0.333								
INFS7677												
GROUP 1	2	29.5000	26.163	18.500	109.89	0.018	0.63	3	0.571	0.98	1.01	0.717
GROUP 2	3	24.6667	2.517	1.453								
INFS7677												
GROUP 1	2	6.0000	2.828	2.000	24.00	0.078	-1.50	3	0.230	-1.15	1.06	0.455
GROUP 2	3	8.3333	0.577	0.333								
[illegible]												
GROUP 1	2	16.0000	9.899	7.000	7.56	0.222	-0.91	3	0.429	-0.79	1.19	0.531
GROUP 2	3	21.0000	3.606	2.082								

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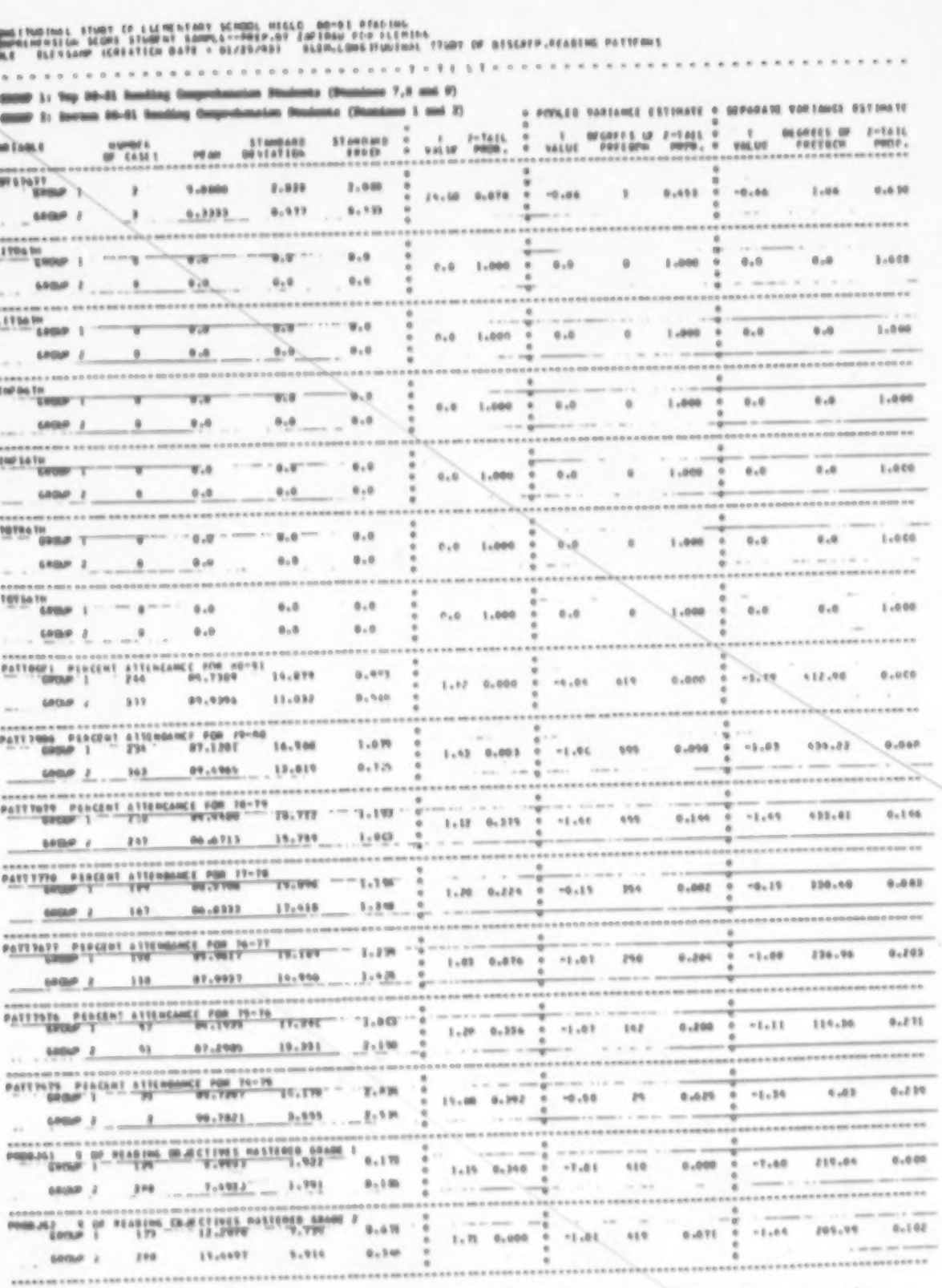
APPENDIX E (continued)



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APPENDIX E (continued)

LONGITUDINAL STUDY OF ELEMENTARY SCHOOL NEEDS 80-81 READING
COMPREHENSIVE SCORE SILENT SAMPLE--PREP.BY ZAPIHAN FOR ELEMENT
FILE ELEMSAMP (CREATION DATE = 01/29/81) ELEM.LONGITUDINAL STUDY OF DISCOLP.ARTICING PATTERNS

GROUP 1: Top 80-81 Reading Comprehension Students (Dominoes 7,8 and 9)

GROUP 2: Bottom 80-81 Reading Comprehension Students (Dominoes 1 and 2)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	POOLED VARIANCE ESTIMATE t	POOLED VARIANCE ESTIMATE DEGREES OF FREEDOM	POOLED VARIANCE ESTIMATE 2-TAIL PROB.	SEPARATE VARIANCE ESTIMATE t	SEPARATE VARIANCE ESTIMATE DEGREES OF FREEDOM	SEPARATE VARIANCE ESTIMATE 2-TAIL PROB.
PROBJ63 # OF READING OBJECTIVES MASTERED GRADE 3												
GROUP 1	126	9.5994	1.054	0.104	1.63	0.002	-11.44	334	0.000	-10.96	219.60	0.000
GROUP 2	211	7.6906	1.450	0.100								
PROBJ64 # OF READING OBJECTIVES MASTERED GRADE 4												
GROUP 1	179	21.2849	10.719	1.343	1.39	0.031	1.34	346	0.079	1.39	256.34	0.090
GROUP 2	211	19.1319	13.319	0.917								
PROBJ65 # OF READING OBJECTIVES MASTERED GRADE 5												
GROUP 1	117	18.2393	9.709	0.913	2.06	0.000	-10.60	236	0.000	-10.41	197.60	0.000
GROUP 2	129	23.0000	9.016	0.399								
PROBJ66 # OF READING OBJECTIVES MASTERED GRADE 6												
GROUP 1	129	21.2326	19.709	1.273	1.71	0.203	1.04	267	0.040	1.00	260.33	0.048
GROUP 2	129	17.9529	12.998	1.133								

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